950

EMPLOYMENT-UNEMPLOYMENT

HEARINGS

BEFORE THE

JOINT ECONOMIC COMMITTEE

CONGRESS OF THE UNITED STATES

NINETY-SIXTH CONGRESS

FIRST SESSION

PART 14

FEBRUARY 2, MARCH 9, APRIL 6, MAY 4, AND JUNE 1, 1979

[Hearing day of July 6, 1979, of this series, was not held due to a congressional recess on that respective date]

Printed for the use of the Joint Economic Committee

U.S. GOVERNMENT PRINTING OFFICE

50-680 O WASHINGTON : 1979

For sale by the Superintendent of Documents, U.S. Government Printing Office
Washington, D.C. 20402

JOINT ECONOMIC COMMITTEE

(Created pursuant to sec. 5(a) of Public Law 304, 79th Cong.)

LLOYD BENTSEN, Texas, *Chairman*
RICHARD BOLLING, Missouri, *Vice Chairman*

SENATE	HOUSE OF REPRESENTATIVES
WILLIAM PROXMIRE, Wisconsin	HENRY S. REUSS, Wisconsin
ABRAHAM RIBICOFF, Connecticut	WILLIAM S. MOORHEAD, Pennsylvania
EDWARD M. KENNEDY, Massachusetts	LEE H. HAMILTON, Indiana
GEORGE McGOVERN, South Dakota	GILLIS W. LONG, Louisiana
PAUL S. SARBANES, Maryland	PARREN J. MITCHELL, Maryland
JACOB K. JAVITS, New York	CLARENCE J. BROWN, Ohio
WILLIAM V. ROTH, JR., Delaware	MARGARET M. HECKLER, Massachusetts
JAMES A. McCLURE, Idaho	JOHN H. ROUSSELOT, California
ROGER W. JEPSEN, Iowa	CHALMERS P. WYLIE, Ohio

JOHN M. ALBERTINE, *Executive Director*
LOUIS C. KRAUTHOFF II, *Assistant Director-Director, SSEC*
RICHARD F. KAUFMAN, *Assistant Director-General Counsel*
CHARLES H. BRADFORD, *Minority Counsel*

CONTENTS

WITNESSES AND STATEMENTS

SUBMISSIONS FOR THE RECORD

FRIDAY, FEBRUARY 2, 1979

FRIDAY, MARCH 9, 1979

FRIDAY, APRIL 6, 1979

FRIDAY, MAY 4, 1979

FRIDAY, JUNE 1, 1979

EMPLOYMENT-UNEMPLOYMENT

FRIDAY, FEBRUARY 2, 1979

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to notice, at 10 a.m., in room 1202, Dirksen Senate Office Building, Hon. Lloyd Bentsen (chairman of the committee) presiding.

Present: Senators Bentsen and McClure; and Representative Mitchell.

Also present: John M. Albertine, executive director; Louis C. Krauthoff II, assistant director-director, SSEC; Richard F. Kaufman, assistant director-general counsel; David W. Allen, William R. Buechner, L. Douglas Lee, and M. Catherine Miller, professional staff members; Katie MacArthur, press assistant; Mark Borchelt, administrative assistant; and Charles H. Bradford, minority counsel.

OPENING STATEMENT OF SENATOR BENTSEN, CHAIRMAN

Senator BENTSEN. It is 10 o'clock and this hearing will come to order.

Commissioner Norwood, I can recall last year some of the economists were predicting a downturn in the fourth quarter of last year and then, as time passed, because the economy kept moving, they said the recession is going to be in the second quarter of 1979. Perhaps these figures you give us this morning will push them to the fourth quarter or maybe they will try to say the fifth quarter.

The unemployment figures that we see today for January fell slightly to 5.8 percent. That is pretty good news but what is really good news is that the employment itself has increased sharply by 450,000.

We can compare the employment gain against the last 2 months' average, about 250,000, that is roughly the monthly average for 1978, a year in which the economy provided a spectacularly large number of jobs.

The January employment figures would seem to indicate that the strong employment gains made last year continue.

Commissioner Norwood, don't these figures read in the context of a buoyant fourth quarter indicate that the economy may be stronger than we have been led to believe?

I am also very happy about the employment gains of 100,000 made by teenagers.

What happened to unemployment among teenagers is also encouraging; the rate fell from 16.5 percent to 15.7 percent. While that number bounces around a great deal, I think we can take a great deal of satisfaction from the large drop in unemployment among young people.

Commissioner Norwood, you know that we are glad to have you before us each month, but we are especially glad to have you when you have a big smile, like you have this morning. Would you proceed?

STATEMENT OF HON. JANET L. NORWOOD, ACTING COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY ROBERT L. STEIN, ASSISTANT COMMISSIONER, OFFICE OF CURRENT EMPLOYMENT ANALYSIS; AND KENNETH DALTON, CHIEF, DIVISION OF CONSUMER PRICES AND PRICE INDEXES

Ms. NORWOOD. Thank you, Mr. Chairman.

First, let me introduce Mr. Robert Stein, our Assistant Commissioner for Current Employment Analysis and Mr. Kenneth Dalton, on my left, who is the head of our Consumer Price Division.

I am very happy, Mr. Chairman, to discuss the Employment Situation released with you this morning.

Total employment according to the household survey rose by 450,000 between December and January, continuing the pattern of strong growth recorded in October and November. The employment-population ratio reached a new alltime high of 59.3 percent. At the same time, the labor force continued to increase and there were 5.9 million unemployed persons. The unemployment rate was 5.8 percent in January, not significantly changed over the month. The rate has been fairly steady since August 1978.

The number of employees on nonfarm payrolls, as measured by the establishment survey, also continued to expand in January. The increase in payroll jobs over the month was 325,000. Manufacturing industries added about 65,000 workers to their payrolls, a smaller increase than in the prior 3 months. Construction employment also showed a comparatively small increase in January. Most of the gain in payroll jobs was in the service-producing sector, mainly in retail trade.

Average weekly hours of production or nonsupervisory workers in the total private economy edged down over the month. The index of aggregate weekly hours, which reflects trends both in employment and the workweek, also edged down as the decline in hours more than offset a gain of 180,000 in production worker employment. In manufacturing, however, the index was up slightly and overtime hours remained at a comparatively high level.

The unemployment rate for all civilian workers—5.8 percent in January—has been virtually the same for the past 6 months. The employment expansion has been strong enough to absorb a rapidly growing labor force, but has made no further inroads on the unemployment rate. In recent months, jobless rates have also shown little change for major demographic groups, including adult men and women, teenagers, and black and white workers.

CHANGE OVER THE YEAR

Employment, as measured by the household survey, has increased by 3.4 million from a year earlier. Although nonfarm payroll employment, as measured by the establishment survey, showed a slightly

greater expansion of 3.6 million from a year ago, it should be noted that payroll jobs were temporarily reduced in early 1978 by the coal strike. Nevertheless, the gain in employment over the past year has been one of the largest on record, and has been reflected in all industry groups with the exception of agriculture and the Federal Government.

The unemployment rate has been reduced by 0.5 percentage points over the year, with improvements recorded among adult men and women. Although there was more improvement in the jobless rate for blacks than for whites, in January 1979 the rate for blacks was still more than twice that of whites. Black teenagers in the labor force recorded a modest decline in unemployment, but in January 1979 their rate was still at the exceptionally high level of nearly 33 percent.

The civilian labor force has grown by nearly 3 million over the year. Much of this growth was among women.

SOME PERSPECTIVES ON WORKING WOMEN

An unusually large number of women—16 and over—entered or reentered the civilian labor force in the past year and by January 1979, 43 million women were in the labor force. A near-record, over-the-year gain of about 1.8 million women accounted for nearly two-thirds of the entire labor force increase. By mid-1978, one out of every two women 16 years old and over was working or looking for work, and the proportion has edged up further in recent months.

Most of the recent labor force gains, like most of those throughout the 1970's, occurred among women under 35. Despite the pressures of combining a job with family responsibilities, large numbers of women 25 to 34 years old—71 percent of whom are mothers with dependent children under 18 years in the home—continued to enter or reenter the work force.

Increased labor force participation was accompanied by sharp employment gains with almost 2 million more employed women in January 1979 than in January 1978. Over half of the employed women were in clerical and service occupations, the traditional fields of female employment. As in the past, about 7 out of 10 employed women were working full time, 35 or more hours per week.

The number of families with more than one earner has risen dramatically. By March 1978, 27.5 million, 58 percent, of all husband-wife families had more than one earner. In the vast majority—84 percent—of these multiearner families, both the husband and wife were earners.

The growth in the labor force participation rate of women with preschool-age children continued its upward trend. Nearly 2 out of 5 women in the labor force—about 16.1 million—have children under 18. Of these women, about 5.8 million have children under 6. In March 1978, 42 percent of all women with preschool-age children were in the labor force, compared to 30 percent in 1970.

In 1978, a record one in seven families was headed by a woman. Since 1970, the net addition of over 2.6 million families of this type has far outpaced increases registered in earlier decades. Today, women who head families are younger than in the past, more likely to be

divorced, to have young children in the home, and to be in the paid labor market.

More than 10 million children were in families where the father was absent and 61 percent of these children had mothers who were working or looking for work. As in the past, the total income of today's families headed by women lags considerably behind that of husband-wife families. The proportion who live in poverty—1 in 3—far outnumbers the proportion of husband-wife families in poverty—1 in 18.

PRICES, WAGES, AND PRODUCTIVITY IN 1978

Last week, Mr. Chairman, the Bureau of Labor Statistics issued three press releases reporting on developments at the end of 1978 in consumer prices, major collective bargaining settlements, and productivity. I would like very briefly to put these data in some perspective for the year 1978 as a whole.

PRICES

Prices at both the retail and the primary market levels rose considerably more in 1978 than in the preceding year. The Consumer Price Index for all urban consumers, CPI–U, and the Producer Price Index for finished goods, PPI—the major measures of inflation published by BLS—both rose about 9 percent from December 1977 to December 1978, after increasing slightly less than 7 percent in 1977. The 1978 advances in both the CPI and the PPI were the largest for any calendar year since 1974.

The increase in the rate of inflation last year was particularly marked for prices in the food, residential construction, and transportation sectors of the economy. Price increases in most other sectors either moderated or remained unchanged in 1978 compared with 1977. Changes for clothing and some fuels were up less than in 1977 while medical care costs increased at the same 8.8-percent rate.

Food prices, which had risen about 8 percent in 1977, were up nearly 12 percent this past year. Much of this speedup resulted from steep price rises for meats; in particular, beef and veal prices advanced more than 25 percent, reflecting the impact of several years of liquidation of cattle herds. In the residential construction sector, house prices rose more than 11 percent in the year ended in December 1978, mortgage interest rates were nearly 10 percent higher, and construction material prices were up 11 percent.

These advances resulted partly from the unusually high levels of residential construction activity during the year, as consumers increasingly regarded houses as one of the best available investments for protection from inflation. In spite of rapidly rising interest rates, the availability of mortgage financing was sustained in part, because of recent regulatory changes allowing thrift institutions to compete more effectively for loanable funds.

Among other goods, prices for gasoline and home heating oil rose steeply during the latter half of the year, as once-abundant inventories were drawn down. Used car prices, which had dropped during 1977, turned sharply higher in 1978. Prices for capital equipment and nonfood materials used in production generally rose somewhat more than in 1977.

WAGES

The major wage and compensation measures also increased at a faster pace in 1978 than in 1977. Average hourly compensation, the broadest measure which includes fringe benefits as well as wages and salaries, rose more than 9 percent over the year. Wage and salary earnings—as reported in the Employment Cost Index and in the Hourly Earnings Index—went up about 8 percent in 1978. Major collective bargaining settlements in 1978 yielded first-year wage rate settlements of about the same rate of increase as in 1977, although adjustments over the life of the contract tended to be somewhat larger than in the previous year.

Since the CPI rose more than the earnings indexes, the BLS real earnings measures fell in 1978. Cost-of-Living escalator increases for workers who received them under major collective bargaining agreements during 1978 averaged 4.9 percent, offsetting 54 percent of the rise in the CPI.

PRODUCTIVITY

Last Friday, the BLS reported on the changes in productivity which occurred during the last year. Although productivity growth recovered somewhat in the latter half of the year from the very steep decline in the first quarter, productivity rose substantially less in 1978 than it had in the previous year. In fact, the 0.4 percent gain was the smallest rise since the recession year 1974 when productivity actually declined 3 percent. Whatever gain we had in 1978 came from the manufacturing sector. When manufacturing is removed from the nonfarm sector, productivity fell about 0.3 percent.

This disappointing productivity performance for the private business sector, coupled with the sharp increase in hourly compensation, had serious implications for unit labor costs, which accelerated to almost 9 percent in 1978, an increase very close to the consumer price rise over the year.

SEASONAL ADJUSTMENT

Finally, Mr. Chairman, I would like to draw your attention to the new table of alternative seasonally adjusted unemployment rates, which is appended to my testimony. Over the past year, the Bureau of Labor Statistics has done considerable research on methods for seasonally adjusting the labor force series. The new table simplifies the presentation of alternatives and introduces two new approaches.

We have reduced the number of alternatives presented for the standard X–11 procedure and added two new unemployment rate series computed with the X–11–ARIMA method. X–11–ARIMA, developed by Estela Dagum and used officially at Statistics Canada, is an extension of the standard X–11 procedure. ARIMA is an acronym for autoregressive integrated moving average. [Laughter.]

The X–11–ARIMA method etends the data base for seasonal adjustment with 1 additional year of extrapolated values using ARIMA models fitted to the data. This method seems to reflect recent shifts in seasonal patterns to a greater extent than the standard approach.

Over the coming year, we will continue our research and report to the committee on any improvements that might be made in our seasonal adjustment procedures.

My colleagues and I will now be glad to answer any questions you may have.

[The table attached to Ms. Norwood's statement, together with the Employment Situation press release referred to, follows:]

UNEMPLOYMENT RATES BY ALTERNATIVE SEASONAL ADJUSTED METHODS

Month and year	Unadjusted rate	Standard X-11 method					X-11 ARIMA method		Range (cols. 2-8)
		Official	Concurrent	Stable	Total	Residual	Extrapolated	Concurrent	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978:									
January	7.0	6.3	6.3	6.4	6.3	6.1	6.4	6.4	0.3
February	6.9	6.1	6.1	6.1	6.1	6.0	6.1	6.1	.1
March	6.6	6.2	6.2	6.2	6.2	6.1	6.2	6.2	.1
April	5.8	6.1	6.1	6.0	6.0	6.1	6.1	6.1	.1
May	5.5	6.1	6.1	6.2	6.2	6.2	6.1	6.1	.1
June	6.2	5.9	5.9	5.8	5.9	5.8	5.8	5.8	.1
July	6.3	6.1	6.1	6.1	6.2	6.2	6.1	6.1	.1
August	5.8	5.9	5.9	5.9	5.9	6.0	5.9	5.9	.1
September	5.7	5.9	5.9	5.9	5.9	6.0	5.9	5.9	.1
October	5.4	5.8	5.8	5.8	5.8	5.9	5.8	5.8	.1
November	5.5	5.8	5.8	5.8	5.7	5.8	5.8	5.8	.1
December	5.6	5.9	5.9	6.0	5.8	6.0	5.9	5.9	.2
1979: January	6.4	5.8	5.8	5.8	5.7	5.5	5.8	5.8	.3

Source: U.S. Department of Labor, Bureau of Labor Statistics, Feb. 2, 1979.

NOTES TO TABLE COLUMN NUMBERS

(1) *Unadjusted rate.*—Unemployment rate not seasonally adjusted.

(2) *Official rate (standard X–11 method).*—The published seasonally adjusted rate. Each of the 3 major labor force components—agricultural employment, nonagricultural employment and unemployment data—for 4 age-sex groups (males and females under and over 20 years of age) are separately adjusted then added to derive seasonally adjusted total figures. Teenage unemployment and nonagricultural employment are adjusted by the standard X–11 method's additive option, while all other series are adjusted by the multiplicative option. Adult male unemployment is adjusted multiplicatively using the prior trend adjustment feature of the X–11. The rate is computed by adding the 12 components to a civilian labor force total, and dividing the derived civilian labor force into the unemployment total. These series are revised at the end of each year. Factors for the current year are computed at the beginning of the year for the 12 succeeding months, and published in advance.

The current "implicit" factors for the overall unemployment rate, derived by dividing the original unemployment rate by the seasonally adjusted rate for the months of 1978, are:

January	111.1	July	102.1
February	112.0	August	98.5
March	106.7	September	97.3
April	94.6	October	93.1
May	89.5	November	95.7
June	105.6	December	95.5

(3) *Concurrent (standard X–11 method).*—The procedure for computation of the official rate is followed, except that the data are re-seasonally adjusted by the standard X–11 method each month as the most recent data become available, i.e., the rate for the January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are as revised to incorporate experience through December 1978.

(4) *Stable (standard X–11 method).*—The stable seasonal option of the standard X–11 method uses final seasonal factors computed as an unweighted average of all seasonal-irregular ratios for the entire span of the period, January 1967–December 1978. In essence, this procedure assumes that seasonal patterns are relatively constant from year-to-year. The unweighted average is updated and series revised at the end of each year.

(5) *Total (standard X–11 method).*—This is an alternative aggregation procedure, in which total unemployment and labor force levels are directly adjusted by the standard X–11 (multiplicative option) to derive the rate. The series are revised at the end of each year.

(6) *Residual (standard X–11 method).*—The labor force and employment levels are adjusted directly, with the level of unemployment derived as a residual. The rate is computed by dividing the residual unemployment level by the directly adjusted civilian labor force. The series are revised at the end of each year.

(7) *Extrapolated (X–11 ARIMA method).*—Data for the 12 component groups of the unemployment rate are estimated using ARIMA (autoregressive, integrated, moving average) models. The enlarged series is then seasonally adjusted with the X–11 program, and the rates are computed as in the official procedure. The series are revised at the end of each year. Factors for the current year are extrapolated at the beginning of the year for the 12 succeeding months.

(8) *Concurrent (X–11 ARIMA).*—The procedure for computation of the X–11 ARIMA rate is followed, except that the data are re-seasonally adjusted each month as the most recent data become available, i.e., the rate for January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are revised to reflect experience through December 1978.

Methods of adjustment: The standard X–11 method was developed by Julius Shiskin at the Bureau of the Census. The method is described in "X–11 Variant of the Census Method II Seasonal Adjustment Program," by Julius Shiskin, Alan Young, and John Musgrave, (Technical Paper No. 15, Bureau of the Census, 1967).

The X–11 ARIMA method was developed at Statistics Canada by Estela Bee Dagum and is the official method for seasonally adjusting the Canadian labor force series. A general description of the method is contained in "A Comparison and Assessment of Seasonal Adjustment Methods for Employment and Unemployment Statistics," by Estela Bee Dagum (Background Paper No. 5, U.S. National Commission on Employment and Unemployment Statistics, February 1978).

News
United States Department of Labor
Bureau of Labor Statistics Washington, D.C. 20212

Contact: John Bregger (202) 523-1944
523-1371
Walter Larson (202) 523-1913
523-1208

USDL 79-92
TRANSMISSION OF MATERIAL IN THIS RELEASE IS EMBARGOED UNTIL 9:00 A.M. (EST) FRIDAY, FEBRUARY 2, 1979

THE EMPLOYMENT SITUATION: JANUARY 1979

Employment rose in January and unemployment was little changed, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The unemployment rate was 5.8 percent; it has been either 5.8 or 5.9 percent for the past 6 months.

Total employment--as measured by the monthly survey of households--advanced by 450,000 in January to 96.3 million, and the employment-population ratio reached a new high of 59.3 percent.

Nonfarm payroll employment--as measured by the monthly survey of establishments--grew by 325,000 over the month to 87.6 million. Gains were widely dispersed throughout the major industry divisions.

Unemployment

The number of persons unemployed in January and the unemployment rate, 5.9 million and 5.8 percent, respectively, were about unchanged from the previous month and have been virtually the same for the past 6 months. Similarly, the jobless rates for adult men (4.0 percent), adult women (5.7 percent), and teenagers (15.7 percent) were little changed from December. The rates for whites (5.1 percent) and blacks (11.2 percent), like the overall rate, have remained at about their late-summer levels. Occupational and industry jobless rates were in line with those of the past several months. (See tables A-1 and A-2.)

Since January 1978, however, the overall unemployment rate has declined by about half a point, and nearly all worker groups--including Vietnam-Era veterans and persons of Hispanic origin--shared in the improvement. Among the exceptions were male teenagers and part-time workers. (See tables A-2, A-6, A-8, and A-9.)

New Tables on Persons of Hispanic Origin and Veterans

This release contains two new tables. Table A-8 provides data on the employment status of persons of Hispanic origin, with comparisons shown for whits and black (only) workers. Table A-9 provides expanded age detail on Vietnam-era veterans. Both tables show current month and year earlier comparisons, *not* adjusted for seasonality. Seasonally adjusted data for Vietnam-era veterans, which formerly appeared in table A-2 have been discontinued. Partly as a result of the shifting age composition of veterans, the seasonally adjusted series are no longer sufficiently reliable on statistical grounds to warrant publication.

Half of the jobless had been seeking work for less than 6 weeks; except for a dip in the prior 2 months, the median duration of unemployment has not changed since last June. Over the year, however, the duration of joblessness dropped by about half a week. (See table A-4.)

Total Employment and the Labor Force

Total employment rose by about 450,000 in January, after having grown very little in the month before. From a 2-month perspective, the expansion was about on par with the continuing strong upward trend. Although adult men accounted for most of the over-the-month employment gain, adult women have comprised half of the 3.4 million increase in jobholders since January 1978.

The civilian labor force grew by more than 300,000 from December to January to 102.2 million and has risen by 2.9 million from its year-earlier level. The civilian labor force participation

Table A. Major indicators of labor market activity, seasonally adjusted

Selected categories	Quarterly averages					Monthly data		
	1977	1978				1978		1979
	IV	I	II	III	IV	Nov.	Dec.	Jan.
HOUSEHOLD DATA	Thousands of persons							
Civilian labor force	98,538	99,263	100,127	100,753	101,524	101,628	101,867	102,183
Total employment	92,046	93,084	94,099	94,726	95,616	95,751	95,855	96,300
Unemployment	6,492	6,179	6,028	6,027	5,908	5,877	6,012	5,883
Not in labor force	58,861	58,741	58,478	58,482	58,398	58,288	58,275	58,170
Discouraged workers	970	941	851	853	760	N.A.	N.A.	N.A.
	Percent of labor force							
Unemployment rates								
All workers	6.6	6.2	6.0	6.0	5.8	5.8	5.9	5.8
Adult men	4.7	4.5	4.2	4.1	4.0	3.9	4.1	4.0
Adult women	6.7	6.0	6.1	6.1	5.8	5.8	5.8	5.7
Teenagers	16.6	16.9	16.1	16.1	16.3	16.2	16.5	15.7
White	5.7	5.4	5.2	5.2	5.1	5.0	5.2	5.1
Black and other	13.2	12.4	12.1	11.7	11.5	11.7	11.5	11.2
Full-time workers	6.1	5.7	5.5	5.5	5.2	5.2	5.3	5.2
ESTABLISHMENT DATA	Thousands of jobs							
Nonfarm payroll employment	83,489	84,262	85,677	86,115	86,952p	87,036	87,248p	87,573p
Goods-producing industries	24,583	24,766	25,376	25,478	25,855p	25,872	26,023p	26,112p
Service-producing industries	58,906	59,495	60,302	60,637	61,097p	61,164	61,225p	61,461p
	Hours of work							
Average weekly hours:								
Total private nonfarm	36.0	35.7	36.0	35.8	35.9p	35.8	35.9p	35.7p
Manufacturing	40.5	40.2	40.6	40.4	40.6p	40.7	40.7p	40.6p
Manufacturing overtime	3.6	3.6	3.6	3.5	3.7p	3.7	3.8p	3.8p

p=preliminary. N.A.=not available.

rate rose slightly over the month to 63.7 percent, an all-time high. Over-the-year gains in participation were strongest among adult women and teenagers. (See table A-1.)

Industry Payroll Employment

Nonfarm payroll employment increased by 325,000 to 87.6 million in January, as employment grew in 72 percent of the 172 industries that comprise the BLS diffusion index of private nonagricultural employment. The number of nonfarm jobs was 3.6 million higher than a year earlier. (See tables B-1 and B-6.)

Over-the-month job gains took place in nearly all of the major industry divisions. The largest increase was in retail trade--130,000--which more than counteracted a small reduction in the prior month. Elsewhere in the service-producing sector, smaller gains occurred in services (40,000), finance, insurance, and real estate (25,000), and transportation and public utilities (15,000).

In the goods-producing sector, manufacturing employment continued the sustained growth evident since last September, although at a slower pace. Totaling 65,000, the gains were generally pervasive throughout the durable and nondurable goods industries. Over the past year, job growth in the durable goods industries (610,000) has far outpaced the increase in nondurables (115,000). Employment in mining and construction was little changed over the month. However, construction employment was 455,000 higher than its year-ago level.

Hours

The average workweek of production or nonsupervisory workers on private nonagricultural payrolls was 35.7 hours in January, down from December's level of 35.9 hours. The manufacturing workweek slipped by 0.1 hour to 40.6 hours. Factory overtime, at 3.8 hours, was unchanged from December. (See table B-2.)

Because the reduction in the workweek more than offset the employment pickup, the index of aggregate weekly hours of production or nonsupervisory workers on private nonagricultural payrolls declined 0.2 percent to 122.6 (1967=100) in January. The manufacturing index, however, continued to rise. The overall index was 5.5 percent above its year-ago level. (See table B-5.)

Hourly and Weekly Earnings

Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls increased 0.5 percent in January and 8.8 percent from a year ago (seasonally adjusted). Average weekly earnings were about unchanged over the month, reflecting the decline in the average workweek. Weekly earnings were 9.4 percent above the January 1978 level.

Before adjustment for seasonality, average hourly earnings rose 5 cents in January to $5.95, 48 cents above January 1978; average weekly earnings were $209.44, $3.55 below December but $17.44 higher than a year earlier. (See table B-3.)

The Hourly Earnings Index

The Hourly Earnings Index--earnings adjusted for overtime in manufacturing, seasonality, and the effects of changes in the proportion of workers in high-wage and low-wage industries--was 222.2 (1967=100) in January, 0.9 percent higher than in December. The index was 7.9 percent above January a year ago. During the 12-month period ended in December, the Hourly Earnings Index in dollars of constant purchasing power declined 0.7 percent. (See table B-4.)

Explanatory Note

This release presents and analyzes statistics from two major surveys. Data on labor force, total employment, and unemployment (A tables) are derived from the Current Population Survey—a sample survey of households which is conducted by the Bureau of the Census for the Bureau of Labor Statistics. Beginning in September 1975, the sample was enlarged by 9,000 households in order to provide greater reliability for smaller States and thus permit the publication of annual statistics for all 50 States and the District of Columbia. These supplementary households were added to the 47,000 national household sample in January 1978; thus the sample now consists of about 56,000 households selected to represent the U.S. civilian noninstitutional population 16 years and over.

Statistics on nonagricultural payroll employment, hours, and earnings (B tables) are collected by the Bureau of Labor Statistics, in cooperation with State agencies, from payroll records of a sample of approximately 165,000 establishments. Unless otherwise indicated, data for both statistical series relate to the week containing the 12th day of the specified month.

Comparability of household and payroll employment statistics

Employment data from the household and payroll surveys differ in several basic respects. The household survey provides information on the labor force activity of the entire civilian noninstitutional population, 16 years of age and over, without duplication. Each person is classified as either employed, unemployed, or not in the labor force. The household survey counts employed persons in both agricultural and nonagricultural industries and, in addition to wage and salary workers (including private household workers), counts the self-employed, unpaid family workers, and persons "with a job but not at work" and not paid for the period absent.

The payroll survey relates only to paid wage and salary employees (regardless of age) on the payrolls of nonagricultural establishments. Persons who worked at more than one job during the survey week or otherwise appear on more than one payroll are counted more than once in the establishment survey. Such persons are counted only once in the household survey and are classified in the job at which they worked the greatest number of hours.

Unemployment

To be classified in the household survey as unemployed an individual must: (1) Have been without a job during the survey week; (2) have made specific efforts to find employment sometime during the prior 4 weeks; and (3) be presently available for work. In addition, persons on layoff and those waiting to begin a new job (within 30 days), neither of whom must meet the jobseeking requirements, are also classified as unemployed. The unemployed total includes all persons who satisfactorily meet the above criteria, regardless of their eligibility for unemployment insurance benefits or any kind of public assistance. The unemployment rate represents the unemployed as a proportion of the civilian labor force (the employed and unemployed combined).

The Bureau regularly publishes a wide variety of labor market measures. See, for example, the demographic, occupational, and industry detail in tables A-2 and A-3 of this release and the comprehensive data package in Employment and Earnings each month. A special grouping of seven unemployment measures is set forth in table A-7. Identified by the symbols U-1 through U-7, these measures represent a range of possible definitions of unemployment and of the labor force—from the most restrictive (U-1) to the most comprehensive (U-7). The official rate of unemployment appears as U-5.

Seasonal adjustment

Nearly all economic phenomena are affected to some degree by seasonal variations. These are recurring, predictable events which are repeated more or less regularly each year—changes in weather, opening and closing of schools, major holidays, industry production schedules, etc. The cumulative effects of these events are often large. For example, on average over the year, they explain about 95 percent of the month-to-month variance in the unemployment figures. Since seasonal variations tend to be large relative to the underlying cyclical trends, it is necessary to use seasonally-adjusted data to interpret short-term economic developments. At the beginning of each year, seasonal adjustment factors for unemployment and other labor force series are calculated for use during the entire year, taking into account the prior year's experience.

All seasonally-adjusted civilian labor force and unemployment rate statistics, as well as the major employment and unemployment estimates, are computed by aggregating independently adjusted series. The official unemployment rate for all civilian workers is derived by dividing the estimate for total unem-

ployment (the sum of four seasonally-adjusted age-sex components) by the civilian labor force (the sum of 12 seasonally-adjusted age-sex components).

For establishment data, the seasonally-adjusted series for all employees, production workers, average weekly hours, and average hourly earnings are adjusted by aggregating the seasonally-adjusted data from the respective component series. These data are also revised annually, often in conjunction with benchmark (comprehensive counts of employment) adjustments. (The most recent revision of seasonally-adjusted data was based on data through May 1978.)

Sampling variability

Both the household and establishment survey statistics are subject to sampling error, which should be taken into account in evaluating the levels of a series as well as changes over time. Because the household survey is based upon a probability sample, the results may differ from the figures that would be obtained if it were possible to take a complete census using the same questionnaires and procedures. The standard error is the measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the entire population is surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from a figure that would be obtained through a complete census by less than the standard error. Tables A through H in the "Explanatory Notes" of Employment and Earnings provide approximations of the standard errors for unemployment and other labor force categories. To obtain a 90-percent level of confidence, the confidence interval generally used by BLS, the errors should be multiplied by 1.6. The following examples provide an indication of the magnitude of sampling error: For a monthly change in total employment, the standard error is on the order of plus or minus 182,000. Similarly, the standard error on a change in total unemployment is approximately 115,000. The standard error on a change in the national unemployment rate is 0.12 percentage point.

Although the relatively large size of the monthly establishment survey assures a high degree of accuracy, the estimates derived from it also may differ from the figures obtained if a complete census using the same schedules and procedures were possible. However, since the estimating procedures utilize the previous month's level as the base in computing the current month's level of employment (link-relative technique), sampling and response errors may accumulate over several months. To remove this accumulated error, the employment estimates are adjusted to new benchmarks (comprehensive counts of employment), usually on an annual basis. In addition to taking account of sampling and response errors, the benchmark revision adjusts the estimates for changes in the industrial classification of individual establishments. Employment estimates are currently projected from March 1977 levels.

One measure of the reliability of the employment estimates for individual industries is the root-mean-square error (RMSE). The RMSE is the standard deviation adjusted for the bias in estimates. If the bias is small, the chances are about 68 out of 100 that an estimate from the sample would differ from its benchmark by less than the RMSE. For total nonagricultural employment, the RMSE is on the order of plus or minus 81,000. Measures of reliability (approximations of the RMSE) for establishment-survey data and actual amounts of revision due to benchmark adjustments are provided in tables J through O in the "Explanatory Notes" of Employment and Earnings.

HOUSEHOLD DATA

Table A-1. Employment status of the noninstitutional population

[Numbers in thousands]

Employment status	Not seasonally adjusted			Seasonally adjusted					
	Jan. 1978	Dec. 1978	Jan. 1979	Jan. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979
TOTAL									
Total noninstitutional population[1]	159,937	162,250	162,448	159,937	161,570	161,829	162,033	162,250	162,448
Armed Forces[2]	2,121	2,108	2,094	2,121	2,123	2,122	2,117	2,108	2,094
Civilian noninstitutional population[1]	157,816	160,142	160,353	157,816	159,447	159,707	159,916	160,142	160,353
Civilian labor force	97,950	101,632	100,867	99,215	100,974	101,077	101,628	101,867	102,183
Participation rate	62.1	63.5	62.9	62.9	63.3	63.3	63.6	63.6	63.7
Employed	91,053	95,906	94,436	92,923	95,010	95,241	95,751	95,855	96,300
Employment-population ratio[3]	56.9	59.1	58.1	58.1	58.8	58.9	59.1	59.1	59.3
Agriculture	2,868	2,990	2,762	3,363	3,406	3,374	3,275	3,387	3,232
Nonagricultural industries	88,185	92,916	91,673	89,560	91,604	91,867	92,476	92,468	93,068
Unemployed	6,897	5,725	6,431	6,292	5,964	5,836	5,877	6,012	5,883
Unemployment rate	7.0	5.6	6.4	6.3	5.9	5.8	5.8	5.9	5.8
Not in labor force	59,866	58,510	59,487	58,601	58,473	58,630	58,288	58,275	58,170
Men, 20 years and over									
Total noninstitutional population[1]	68,148	69,288	69,385	68,148	68,937	69,081	69,182	69,288	69,385
Civilian noninstitutional population[1]	66,467	67,600	67,726	66,467	67,236	67,382	67,486	67,600	67,726
Civilian labor force	52,781	53,935	53,833	53,169	53,459	53,593	53,938	54,033	54,333
Participation rate	79.3	79.8	79.5	80.0	79.5	79.5	79.9	79.9	80.2
Employed	49,822	51,713	51,227	50,705	51,287	51,448	51,825	51,838	52,133
Employment-population ratio[3]	73.1	74.6	73.8	74.4	74.4	74.5	74.9	74.8	75.1
Agriculture	2,171	2,250	2,044	2,389	2,409	2,363	2,337	2,403	2,293
Nonagricultural industries	47,651	49,463	49,183	48,316	48,878	49,085	49,488	49,435	49,841
Unemployed	2,959	2,221	2,607	2,464	2,172	2,145	2,113	2,195	2,200
Unemployment rate	5.5	4.1	4.8	4.6	4.1	4.0	3.9	4.1	4.0
Not in labor force	13,726	13,665	13,892	13,298	13,777	13,789	13,548	13,567	13,393
Women, 20 years and over									
Total noninstitutional population[1]	74,991	76,227	76,337	74,991	75,873	75,998	76,110	76,227	76,337
Civilian noninstitutional population[1]	74,892	76,119	76,228	74,892	75,764	75,889	76,001	76,119	76,228
Civilian labor force	36,624	38,514	38,158	36,846	37,921	37,860	38,095	38,217	38,185
Participation rate	48.9	50.6	50.1	48.9	50.1	49.9	50.1	50.2	50.1
Employed	34,184	36,457	35,849	34,358	35,691	35,726	35,887	35,990	36,019
Employment-population ratio[3]	45.6	47.8	47.0	45.8	47.0	47.0	47.2	47.2	47.2
Agriculture	421	479	451	547	597	587	571	591	586
Nonagricultural industries	33,763	35,978	35,398	33,811	35,094	35,139	35,316	35,399	35,433
Unemployed	2,440	2,057	2,309	2,288	2,230	2,134	2,208	2,227	2,166
Unemployment rate	6.7	5.3	6.1	6.2	5.9	5.6	5.8	5.8	5.7
Not in labor force	38,268	37,605	38,070	38,246	37,843	38,029	37,906	37,902	38,043
Both sexes, 16-19 years									
Total noninstitutional population[1]	16,798	16,734	16,725	16,798	16,760	16,750	16,741	16,734	16,725
Civilian noninstitutional population[1]	16,457	16,422	16,400	16,457	16,446	16,436	16,429	16,422	16,400
Civilian labor force	8,585	9,183	8,875	9,400	9,594	9,624	9,595	9,617	9,665
Participation rate	52.2	55.9	54.1	57.1	58.3	58.6	58.4	58.6	58.9
Employed	7,046	7,736	7,360	7,860	8,032	8,067	8,039	8,027	8,148
Employment-population ratio[3]	41.9	46.2	44.0	46.8	47.9	48.2	48.0	48.0	48.7
Agriculture	275	262	228	427	400	424	367	393	354
Nonagricultural industries	6,771	7,475	7,132	7,433	7,632	7,643	7,672	7,634	7,794
Unemployed	1,539	1,447	1,515	1,540	1,562	1,557	1,556	1,590	1,517
Unemployment rate	17.9	15.8	17.1	16.4	16.3	16.2	16.2	16.5	15.7
Not in labor force	7,872	7,239	7,525	7,057	6,852	6,812	6,834	6,805	6,735
White									
Total noninstitutional population[1]	140,421	142,198	142,351	140,421	141,693	141,873	142,031	142,198	142,351
Civilian noninstitutional population[1]	138,687	140,507	140,683	138,687	139,990	140,170	140,332	140,507	140,683
Civilian labor force	86,405	89,556	88,988	87,474	88,862	89,067	89,468	89,747	90,093
Participation rate	62.3	63.7	63.3	63.1	63.5	63.5	63.8	63.9	64.0
Employed	81,061	85,133	83,950	82,661	84,250	84,565	85,013	85,125	85,543
Employment-population ratio[3]	57.7	59.9	59.0	58.9	59.5	59.6	59.9	59.9	60.1
Unemployed	5,344	4,422	5,038	4,813	4,612	4,502	4,455	4,622	4,550
Unemployment rate	6.2	4.9	5.7	5.5	5.2	5.1	5.0	5.2	5.1
Not in labor force	52,283	50,951	51,695	51,213	51,128	51,103	50,864	50,760	50,590
Black and other									
Total noninstitutional population[1]	19,516	20,051	20,097	19,516	19,876	19,955	20,002	20,051	20,097
Civilian noninstitutional population[1]	19,129	19,635	19,670	19,129	19,457	19,536	19,585	19,635	19,670
Civilian labor force	11,546	12,076	11,879	11,725	12,084	12,122	12,163	12,153	12,077
Participation rate	60.4	61.5	60.4	61.3	62.1	62.0	62.1	61.9	61.4
Employed	9,992	10,773	10,486	10,226	10,721	10,749	10,786	10,758	10,725
Employment-population ratio[3]	51.2	53.7	52.2	52.4	53.9	53.9	53.7	53.7	53.4
Unemployed	1,554	1,303	1,393	1,499	1,363	1,373	1,417	1,395	1,352
Unemployment rate	13.5	10.8	11.7	12.8	11.3	11.3	11.7	11.5	11.2
Not in labor force	7,583	7,559	7,792	7,404	7,373	7,414	7,422	7,482	7,593

[1] The population and Armed Forces figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

[2] Civilian employment as a percent of the total noninstitutional population (excluding Armed Forces).

Table A-2. Major unemployment indicators, seasonally adjusted

Selected categories	Number of unemployed persons (in thousands)		Unemployment rate					
	Jan. 1978	Jan. 1979	Jan. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979
CHARACTERISTICS								
Total, 16 years and over	6,292	5,883	6.3	5.9	5.8	5.8	5.9	5.8
Men, 20 years and over	2,468	2,200	4.6	4.1	4.0	3.9	4.1	4.0
Women, 20 years and over	2,288	2,166	6.2	5.9	5.6	5.8	5.8	5.7
Both sexes, 16-19 years	1,540	1,517	16.4	16.3	16.2	16.2	16.5	15.7
White, total	4,813	4,550	5.5	5.2	5.1	5.0	5.2	5.1
Men, 20 years and over	1,900	1,729	4.0	3.6	3.5	3.4	3.5	3.6
Women, 20 years and over	1,757	1,638	5.6	5.2	4.9	5.0	5.1	5.0
Both sexes, 16-19 years	1,156	1,103	13.8	14.1	14.0	13.8	14.2	13.7
Black and other, total	1,499	1,352	12.8	11.3	11.3	11.7	11.5	11.2
Men, 20 years and over	546	455	9.6	8.2	8.3	8.3	8.4	7.8
Women, 20 years and over	560	556	11.1	10.0	10.1	10.3	10.2	10.6
Both sexes, 16-19 years	393	341	38.9	34.9	34.5	36.5	34.9	32.7
Married men, spouse present	1,220	1,055	3.1	2.6	2.6	2.4	2.5	2.6
Married women, spouse present	1,304	1,248	5.7	5.5	5.3	5.5	5.6	5.3
Women who head families	383	382	8.2	8.0	7.5	7.7	7.7	7.8
Full-time workers	4,949	4,500	5.9	5.4	5.2	5.2	5.3	5.2
Part-time workers	1,341	1,385	9.1	8.8	9.0	8.9	9.2	9.1
Unemployed 15 weeks and over[1]	1,641	1,251	1.7	1.3	1.3	1.2	1.2	1.2
Labor force time lost[2]	—	--	6.8	6.4	6.2	6.2	6.2	6.2
OCCUPATION[3]								
White-collar workers	1,768	1,659	3.7	3.5	3.3	3.2	3.5	3.3
Professional and technical	385	373	2.7	2.6	2.8	2.4	3.0	2.5
Managers and administrators, except farm	258	215	2.5	2.2	1.8	2.2	1.9	2.0
Sales workers	241	241	3.9	4.3	4.1	3.1	3.6	3.8
Clerical workers	884	829	5.1	4.7	4.2	4.5	4.6	4.6
Blue-collar workers	2,424	2,213	7.3	6.8	6.8	6.4	6.8	6.8
Craft and kindred workers	677	608	5.3	4.7	4.9	4.0	4.7	4.5
Operatives, except transport	974	907	8.4	8.1	7.6	7.5	7.7	7.6
Transport equipment operatives	198	189	5.4	5.2	4.8	4.2	5.3	4.9
Nonfarm laborers	575	509	11.0	10.5	11.0	11.6	11.0	9.4
Service workers	1,045	1,091	7.6	7.4	7.1	7.4	7.7	7.9
Farm workers	117	78	3.9	3.9	4.6	3.2	3.4	2.8
INDUSTRY[3]								
Nonagricultural private wage and salary workers[4]	4,512	4,255	6.3	5.8	5.6	5.6	5.8	5.7
Construction	581	546	11.5	10.6	11.2	10.8	12.1	10.6
Manufacturing	1,265	1,136	5.7	5.3	5.1	5.1	5.0	5.0
Durable goods	689	599	5.3	4.8	4.6	4.6	4.4	4.4
Nondurable goods	576	536	6.3	6.1	6.0	5.8	6.0	5.9
Transportation and public utilities	218	189	4.3	3.6	3.4	3.3	3.3	3.5
Wholesale and retail trade	1,315	1,226	7.2	6.7	6.7	6.5	6.8	6.5
Finance and service industries	1,140	1,130	5.4	5.1	4.6	5.0	5.1	5.1
Government workers	667	635	4.2	3.9	3.9	3.9	4.0	4.0
Agricultural wage and salary workers	138	105	9.0	8.7	9.5	7.9	7.7	7.2

[1] Unemployment rate calculated as a percent of civilian labor force.

[2] Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

[3] Unemployment by occupation includes all experienced unemployed persons, whereas that by industry covers only unemployed wage and salary workers.

[4] Includes mining, not shown separately.

Table A-3. Selected employment indicators

[In thousands]

Selected categories	Not seasonally adjusted		Seasonally adjusted					
	Jan. 1978	Jan. 1979	Jan. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979
CHARACTERISTICS								
Total employed, 16 years and over	91,053	98,436	92,923	95,010	95,241	95,751	95,855	96,300
Men	53,608	55,057	54,992	55,598	55,754	56,096	56,072	56,449
Women	37,445	39,378	37,931	39,416	39,487	39,655	39,783	39,851
Married men, spouse present	38,181	38,732	38,653	38,782	38,806	38,944	39,039	39,202
Married women, spouse present	21,530	22,365	21,567	22,133	22,194	22,274	22,297	22,410
OCCUPATION								
White-collar workers	46,535	48,337	46,481	47,550	47,713	47,888	48,040	48,275
Professional and technical	14,169	14,876	14,041	14,182	14,307	14,297	14,629	14,743
Managers and administrators, except farm	10,037	10,312	10,047	10,062	9,968	10,030	10,217	10,322
Sales workers	5,736	5,892	5,897	5,896	5,986	6,192	6,092	6,055
Clerical workers	16,593	17,257	16,496	17,408	17,452	17,369	17,102	17,154
Blue-collar workers	29,601	31,171	30,055	31,091	31,986	32,202	31,962	32,491
Craft and kindred workers	11,760	12,470	12,112	12,628	12,556	12,646	12,610	12,842
Operatives, except transport	10,411	10,804	10,664	10,981	11,178	11,177	10,987	11,087
Transport equipment operatives	3,381	3,604	3,449	3,573	3,581	3,640	3,640	3,678
Nonfarm laborers	4,050	4,294	4,645	4,709	4,671	4,739	4,825	4,924
Service workers	12,484	12,581	12,681	12,754	12,951	13,009	13,007	12,777
Farm workers	2,432	2,347	2,456	2,455	2,821	2,739	2,826	2,759
MAJOR INDUSTRY AND CLASS OF WORKER								
Agriculture:								
Wage and salary workers	1,146	1,122	1,490	1,482	1,423	1,424	1,478	1,365
Self-employed workers	1,498	1,446	1,603	1,648	1,638	1,563	1,625	1,587
Unpaid family workers	224	194	338	307	323	293	318	293
Nonagricultural industries:								
Wage and salary workers	81,671	84,857	82,905	84,786	85,363	85,578	85,579	86,169
Government	15,496	15,430	15,275	15,336	15,387	15,373	15,360	15,217
Private industries	66,175	69,427	67,630	69,450	69,976	70,205	70,219	70,952
Private households	1,329	1,169	1,416	1,361	1,315	1,335	1,316	1,245
Other industries	64,846	68,258	66,214	68,089	68,661	68,870	68,903	69,707
Self-employed workers	6,090	6,372	6,238	6,224	6,314	6,370	6,515	6,529
Unpaid family workers	824	844	456	470	453	455	460	478
PERSONS AT WORK[1]								
Nonagricultural industries	83,407	87,307	83,573	86,329	86,511	86,653	87,046	87,490
Full-time schedules	68,537	71,888	68,862	71,085	71,318	71,394	71,747	72,209
Part time for economic reasons	2,915	3,038	3,045	3,203	3,164	3,131	3,058	3,159
Usually work full time	1,188	1,296	1,109	1,283	1,167	1,279	1,209	1,208
Usually work part time	1,727	1,740	1,936	1,920	1,997	1,852	1,849	1,951
Part time for noneconomic reasons	11,955	12,425	11,666	12,041	12,029	12,128	12,201	12,122

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

Table A-4. Duration of unemployment

[Numbers in thousands]

Weeks of unemployment	Not seasonally adjusted		Seasonally adjusted					
	Jan. 1978	Jan. 1979	Jan. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979
DURATION								
Less than 5 weeks	3,067	3,033	2,742	2,783	2,719	2,833	2,876	2,713
5 to 14 weeks	2,131	2,102	1,903	1,861	1,789	1,776	1,979	1,877
15 weeks and over	1,700	1,296	1,641	1,268	1,317	1,196	1,208	1,251
15 to 26 weeks	906	779	838	668	732	685	726	728
27 weeks and over	794	517	803	605	585	511	482	523
Average (mean) duration, in weeks	12.4	10.7	13.0	11.5	11.8	11.0	10.7	11.2
Median duration, in weeks	6.2	5.6	6.5	5.9	5.9	5.4	5.6	5.9
PERCENT DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	48.5	47.2	43.6	47.1	46.7	48.6	47.4	46.4
5 to 14 weeks	30.9	32.7	30.3	31.5	30.7	30.6	32.6	32.1
15 weeks and over	24.6	20.2	26.1	21.5	22.6	20.6	19.9	21.4
15 to 26 weeks	13.1	12.1	13.3	11.2	12.6	11.8	12.0	12.5
27 weeks and over	11.5	8.0	12.8	10.2	10.0	8.8	7.9	9.0

Table A-5. Reasons for unemployment

(Numbers in thousands)

Reasons	Not seasonally adjusted		Seasonally adjusted					
	Jan. 1978	Jan. 1979	Jan. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979
NUMBER OF UNEMPLOYED								
Lost last job	3,367	3,088	2,711	2,362	2,456	2,372	2,442	2,458
On layoff	1,129	1,186	742	683	688	706	715	753
Other job losers	2,238	1,902	1,969	1,679	1,812	1,626	1,727	1,701
Left last job	876	943	861	849	812	825	871	927
Reentered labor force	1,877	1,753	1,812	1,930	1,721	1,754	1,937	1,692
Seeking first job	778	686	915	816	825	872	826	823
PERCENT OF DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	48.8	47.8	43.0	39.7	42.2	40.7	40.2	41.6
On layoff	16.4	17.8	11.8	11.5	11.1	12.8	11.8	12.8
Other job losers	32.4	29.6	31.3	28.2	31.2	27.9	28.4	28.9
Job leavers	12.7	14.7	13.7	14.3	14.0	14.2	14.3	15.7
Reentrants	27.2	27.3	28.8	32.4	29.6	30.1	31.9	28.7
New entrants	11.3	10.7	14.5	13.7	14.2	15.0	13.6	14.0
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE								
Job losers	3.5	3.0	2.7	2.3	2.4	2.3	2.4	2.4
Job leavers	.9	.9	.9	.8	.8	.8	.9	.9
Reentrants	1.9	1.7	1.8	1.9	1.7	1.7	1.9	1.7
New entrants	.8	.7	.9	.8	.8	.9	.8	.8

Table A-6. Unemployment by sex and age, seasonally adjusted

Sex and age	Number of unemployed persons (in thousands)		Unemployment rates					
	Jan. 1978	Jan. 1979	Jan. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979
Total, 16 years and over	6,292	5,883	6.3	5.9	5.8	5.8	5.9	5.8
16 to 19 years	1,540	1,517	16.4	16.3	16.2	16.2	16.5	15.7
16 to 17 years	740	755	18.7	19.2	19.2	19.3	20.2	18.4
18 to 19 years	797	758	14.6	14.0	14.0	14.0	13.8	13.6
20 to 24 years	1,543	1,310	10.5	9.3	8.6	9.0	9.3	8.6
25 years and over	3,205	3,049	4.3	4.0	3.9	3.8	3.9	3.9
25 to 54 years	2,685	2,607	4.4	4.1	4.2	4.0	4.2	4.2
55 years and over	511	435	3.5	3.3	3.0	2.9	2.9	2.9
Men, 16 years and over	3,256	3,026	5.6	5.1	5.1	5.0	5.1	5.1
16 to 19 years	792	826	15.6	15.5	16.1	15.9	16.7	16.1
16 to 17 years	394	428	18.1	19.1	19.9	20.1	20.7	19.1
18 to 19 years	393	397	13.6	12.6	13.2	12.7	13.6	13.5
20 to 24 years	832	693	10.4	8.6	8.5	8.5	8.9	8.4
25 years and over	1,618	1,493	3.6	3.3	3.3	3.1	3.2	3.2
25 to 54 years	1,316	1,231	3.6	3.4	3.4	3.2	3.4	3.3
55 years and over	297	258	3.3	3.0	2.8	2.5	2.6	2.8
Women, 16 years and over	3,036	2,857	7.4	7.1	6.8	6.9	6.9	6.7
16 to 19 years	748	691	17.3	17.1	16.3	16.5	16.3	15.3
16 to 17 years	346	331	19.5	19.4	18.4	18.3	19.6	17.5
18 to 19 years	404	361	15.8	15.6	14.8	15.5	14.1	13.6
20 to 24 years	711	618	10.5	10.1	8.7	9.6	9.7	8.9
25 years and over	1,587	1,555	5.3	4.9	4.9	4.9	5.0	5.0
25 to 54 years	1,369	1,376	5.6	5.2	5.2	5.2	5.3	5.4
55 years and over	214	177	3.9	3.8	3.3	3.5	3.3	3.1

Table A-7. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

[Percent]

Measures	Quarterly averages					Monthly data		
	1977	1978				1978		1979
	IV	I	II	III	IV	Nov.	Dec.	Jan.
U-1 —Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.8	1.6	1.4	1.3	1.2	1.2	1.2	1.2
U-2 —Job losers as a percent of the civilian labor force	2.9	2.6	2.5	2.4	2.4	2.3	2.4	2.4
U-3 —Unemployed persons 25 years and over as a percent of the civilian labor force 25 years and over	4.6	4.1	4.1	4.1	3.9	3.8	3.9	3.9
U-4 —Unemployed full-time jobseekers as a percent of the full-time labor force	6.1	5.7	5.5	5.5	5.2	5.2	5.3	5.2
U-5 —Total unemployed as a percent of the civilian labor force (official measure)	6.6	6.2	6.0	6.0	5.8	5.8	5.9	5.8
U-6 —Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons as a percent of the civilian labor force less ½ of the part-time labor force	8.1	7.7	7.6	7.5	7.2	7.2	7.2	7.2
U-7 —Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons plus discouraged workers as a percent of the civilian labor force plus discouraged workers less ½ of the part-time labor force	9.1	8.6	8.4	8.4	8.0	N.A.	N.A.	N.A.

N.A.= not available.

Table A-8. Employment status of the noninstitutional population by race and Hispanic origin, not seasonally adjusted

[Number in thousands]

Employment status	Total		White		Black [1]		Hispanic origin [2]	
	Jan. 1978	Jan. 1979	Jan. 1978	Jan. 1979	Jan. 1978	Jan. 1979	Jan. 1978	Jan. 1979
TOTAL								
Civilian noninstitutional population	157,816	160,353	138,687	140,683	16,477	16,855	7,340	7,477
Civilian labor force	97,950	100,867	86,405	88,988	9,893	10,088	4,462	4,748
Percent of population	62.1	62.9	62.3	63.3	60.0	59.9	60.8	63.5
Employment	91,053	94,436	81,061	83,950	8,473	8,822	4,009	4,325
Agriculture	2,868	2,762	2,617	2,498	209	216	188	178
Nonagricultural industries	88,185	91,673	78,444	81,452	8,264	8,606	3,822	4,151
Unemployment	6,897	6,431	5,344	5,038	1,420	1,266	453	423
Unemployment rate	7.0	6.4	6.2	5.7	14.4	12.5	10.2	8.9
Not in labor force	59,866	59,487	52,283	51,695	6,584	6,767	2,878	2,730

[1] Data relate to black workers only. According to the 1970 Census, they comprised about 89 percent of the "black and other" population group.

[2] Data on persons of Hispanic origin are tabulated separately, without regard to race, which means that they are also included in the data for white and black workers. At the time of the 1970 Census, approximately 95 percent of their population was white.

Table A-9. Employment status of male Vietnam-era veterans and nonveterans by age, not seasonally adjusted

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
			Total		Employed		Unemployed			
							Number		Percent of labor force	
	Jan. 1978	Jan. 1979	Jan. 1978	Jan. 1979	Jan. 1978	Jan. 1979	Jan. 1978	Jan. 1979	Jan. 1978	Jan. 1979
VETERANS [1]										
Total, 20 years and over	8,228	8,463	7,752	8,028	7,257	7,589	495	439	6.4	5.5
20 to 24 years	838	639	747	589	623	508	124	81	16.6	13.8
25 to 29 years	6,718	7,037	6,447	6,758	6,099	6,430	348	328	5.4	4.9
25 to 29 years	2,579	2,119	2,431	2,002	2,245	1,869	186	133	7.7	6.6
30 to 34 years	3,192	3,547	3,090	3,421	2,960	3,285	130	136	4.2	4.0
35 to 39 years	947	1,371	926	1,335	894	1,276	32	59	3.5	4.4
40 years and over	672	787	558	681	535	651	23	30	4.1	4.4
NONVETERANS [2]										
Total, 25 to 39 years	13,317	14,169	12,628	13,431	11,947	12,807	681	624	5.4	4.6
25 to 29 years	5,811	6,427	5,475	6,022	5,102	5,666	373	356	6.8	5.9
30 to 34 years	3,996	4,064	3,792	3,904	3,607	3,752	185	152	4.9	3.9
35 to 39 years	3,510	3,678	3,361	3,505	3,238	3,389	123	116	3.7	3.3

[1] Vietnam-era veterans are those who served between August 5, 1964 and May 7, 1975.

[2] Nonveterans are males who have never served in the Armed Forces. Published data are limited to those 25-39 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

NOTE: Seasonally-adjusted data are no longer being provided because the changing age composition of the Vietnam-era veterans' population distorts the ability to identify seasonality in the series.

Table A-10. Employment status of the noninstitutional population for the ten largest States

[Numbers in thousands]

State and employment status	Not seasonally adjusted [2]			Seasonally adjusted					
	Jan. 1978	Dec. 1978	Jan. 1979	Jan. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979
California									
Civilian noninstitutional population [1]	16,148	16,306	16,336	16,148	16,419	16,448	16,477	16,506	16,536
Civilian labor force	10,312	10,782	10,845	10,328	10,745	10,723	10,718	10,765	10,824
Employed	9,496	10,104	10,027	9,606	10,020	10,034	10,065	10,088	10,137
Unemployed	816	677	788	722	725	689	653	676	687
Unemployment rate	7.9	6.3	7.2	7.0	6.7	6.4	6.1	6.3	6.3
Florida									
Civilian noninstitutional population [1]	6,841	6,892	6,927	6,841	6,945	6,967	6,985	6,994	6,920
Civilian labor force	3,617	3,690	3,756	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,346	3,455	3,473	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	271	235	283	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	7.5	6.4	7.5	(2)	(2)	(2)	(2)	(2)	(2)
Illinois									
Civilian noninstitutional population [1]	8,177	8,243	8,247	8,177	8,223	8,230	8,236	8,243	8,247
Civilian labor force	5,247	5,378	5,272	5,492	5,355	5,402	5,430	5,382	5,317
Employed	4,851	5,083	4,965	4,934	5,056	5,103	5,123	5,045	5,051
Unemployed	395	295	307	358	299	302	310	337	266
Unemployment rate	7.5	5.5	5.7	6.8	5.6	5.6	5.7	6.3	5.0
Massachusetts									
Civilian noninstitutional population [1]	4,310	4,330	4,334	4,310	4,337	4,341	4,340	4,336	4,334
Civilian labor force	2,815	2,844	2,905	(2)	(2)	(2)	(2)	(2)	(2)
Employed	2,603	2,680	2,645	2,675	2,670	2,657	2,675	2,678	2,727
Unemployed	212	163	219	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	7.5	5.7	7.5	(2)	(2)	(2)	(2)	(2)	(2)
Michigan									
Civilian noninstitutional population [1]	6,680	6,687	6,694	6,680	6,684	6,672	6,679	6,687	6,694
Civilian labor force	4,174	4,264	4,257	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,834	3,996	3,916	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	340	268	341	328	401	453	495	304	329
Unemployment rate	8.1	6.3	8.0	(2)	(2)	(2)	(2)	(2)	(2)
New Jersey									
Civilian noninstitutional population [1]	5,436	5,482	5,488	5,436	5,466	5,472	5,477	5,482	5,488
Civilian labor force	3,359	3,365	3,511	3,416	3,476	3,530	3,503	3,592	3,569
Employed	3,096	3,313	3,244	3,173	3,252	3,293	3,330	3,326	3,327
Unemployed	263	246	268	243	224	243	233	266	242
Unemployment rate	7.8	6.9	7.5	7.1	7.0	6.9	6.5	7.4	6.8
New York									
Civilian noninstitutional population [1]	13,275	13,273	13,276	13,275	13,279	13,284	13,288	13,273	13,276
Civilian labor force	7,765	7,973	7,987	7,871	7,851	7,949	7,965	8,056	8,094
Employed	7,085	7,446	7,369	7,246	7,249	7,298	7,405	7,512	7,531
Unemployed	680	527	618	625	602	651	560	544	563
Unemployment rate	8.8	6.6	7.7	7.9	7.7	8.2	7.0	6.8	7.0
Ohio									
Civilian noninstitutional population [1]	7,835	7,906	7,912	7,835	7,886	7,893	7,900	7,906	7,912
Civilian labor force	4,754	5,382	4,997	4,824	5,084	5,084	5,139	5,116	5,065
Employed	4,462	4,936	4,666	4,557	4,736	4,823	4,835	4,851	4,760
Unemployed	291	246	331	268	267	261	274	267	305
Unemployment rate	6.1	4.4	6.6	5.6	5.7	5.1	5.4	5.2	6.0
Pennsylvania									
Civilian noninstitutional population [1]	8,838	8,875	8,881	8,838	8,858	8,864	8,870	8,875	8,881
Civilian labor force	5,115	5,347	5,276	5,172	5,283	5,307	5,350	5,357	5,333
Employed	4,710	5,126	4,970	4,808	4,951	4,977	4,966	4,998	4,994
Unemployed	405	220	306	364	332	329	390	359	339
Unemployment rate	7.9	4.1	7.1	7.1	7.4	7.3	7.3	6.7	6.4
Texas									
Civilian noninstitutional population [1]	9,094	9,291	9,309	9,094	9,235	9,258	9,272	9,291	9,309
Civilian labor force	5,896	6,196	6,085	5,960	5,955	6,048	6,094	6,116	6,150
Employed	5,572	5,812	5,816	5,668	5,653	5,786	5,797	5,813	5,913
Unemployed	324	384	269	292	302	260	297	303	237
Unemployment rate	5.5	6.2	4.4	4.9	4.8	4.6	4.9	5.0	3.9

[1] The population figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and the seasonally adjusted columns.

[2] These are the official Bureau of Labor Statistics' estimates used in the administration of Federal fund allocation programs.

NOTE: The not seasonally adjusted labor force estimates for 1978 have been revised to reflect the latest 1978 population estimates for the States. These revised labor force estimates were used to develop seasonally adjusted data for 1978 and seasonal factors to be used in 1979.

[2] Seasonally adjusted data are not presented for this series, because the variations that are due to seasonal influences cannot be separated with sufficient precision from those which stem from the trend-cycle and irregular components of the original time series.

ESTABLISHMENT DATA

Table B-1. Employees on nonagricultural payrolls by industry

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	Jan. 1978	Nov. 1978	Dec. p 1978	Jan. p 1979	Jul. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. p 1978	Jan. p 1979
TOTAL	82,728	87,800	88,020	86,339	83,871	86,163	86,573	87,036	87,288	87,573
GOODS-PRODUCING	28,018	26,157	25,959	25,425	26,648	25,871	25,670	25,872	26,023	26,114
MINING	669	904	899	896	678	887	893	903	905	903
CONSTRUCTION	3,507	4,517	4,329	3,963	3,905	4,298	4,341	4,368	4,395	4,413
MANUFACTURING	19,842	20,736	20,731	20,566	20,065	20,286	20,436	20,601	20,723	20,799
Production workers	14,237	14,938	14,922	14,783	14,440	14,536	14,655	14,803	14,910	14,986
DURABLE GOODS	11,821	12,485	12,517	12,431	11,917	12,165	12,335	12,410	12,493	12,528
Production workers	8,482	8,949	9,008	8,938	8,569	8,706	8,816	8,909	8,980	9,020
Lumber and wood products	721.9	755.3	750.0	730.7	754	744	748	759	763	754
Furniture and fixtures	482.3	493.3	493.6	492.2	484	480	484	487	491	494
Stone, clay, and glass products	662.0	709.5	699.6	676.5	689	692	696	701	707	704
Primary metal industries	1,181.5	1,229.1	1,235.6	1,234.3	1,196	1,214	1,220	1,235	1,241	1,239
Fabricated metal products	1,611.8	1,694.6	1,702.4	1,691.7	1,625	1,650	1,667	1,684	1,699	1,705
Machinery, except electrical	2,265.8	2,406.9	2,421.4	2,427.2	2,259	2,358	2,391	2,408	2,427	2,433
Electric and electronic equipment	1,918.7	2,020.8	2,022.1	2,018.3	1,923	1,972	1,987	2,001	2,008	2,013
Transportation equipment	1,916.8	2,029.8	2,045.5	2,023.8	1,917	1,943	1,991	2,010	2,023	2,024
Instruments and related products	630.7	673.8	676.3	678.9	632	662	665	671	675	680
Miscellaneous manufacturing	429.6	472.2	453.8	441.3	448	451	456	458	456	460
NONDURABLE GOODS	8,021	8,251	8,214	8,135	8,148	8,120	8,131	8,191	8,233	8,262
Production workers	5,755	5,985	5,914	5,849	5,871	5,830	5,839	5,894	5,930	5,966
Food and kindred products	1,688.7	1,710.4	1,689.1	1,660.1	1,706	1,665	1,667	1,693	1,710	1,722
Tobacco manufacturers	74.6	76.8	75.9	72.8	74	70	71	71	72	72
Textile mill products	911.6	912.5	910.8	902.3	917	907	907	913	915	908
Apparel and other textile products	1,291.8	1,322.6	1,306.2	1,292.5	1,318	1,309	1,307	1,307	1,313	1,319
Paper and allied products	692.3	703.8	701.9	699.3	699	697	692	700	701	705
Printing and publishing	1,156.8	1,201.6	1,214.5	1,209.8	1,159	1,178	1,185	1,198	1,205	1,212
Chemicals and allied products	1,070.0	1,090.5	1,093.0	1,090.1	1,079	1,088	1,089	1,093	1,096	1,099
Petroleum and coal products	201.1	210.8	209.0	203.4	207	209	213	210	211	209
Rubber and misc. plastics products	730.6	768.2	768.7	765.6	737	748	752	761	769	772
Leather and leather products	247.7	249.3	246.8	238.6	252	253	251	248	246	243
SERVICE-PRODUCING	58,706	61,643	62,061	60,914	59,223	60,692	60,903	61,164	61,225	61,461
TRANSPORTATION AND PUBLIC UTILITIES	4,706	4,972	4,988	4,923	4,758	4,955	4,922	4,947	4,963	4,978
WHOLESALE AND RETAIL TRADE	18,806	19,971	20,371	19,628	18,991	19,546	19,632	19,701	19,680	19,926
WHOLESALE TRADE	4,768	4,988	5,004	4,968	4,802	4,917	4,945	4,968	4,989	5,003
RETAIL TRADE	14,038	14,983	15,367	14,660	14,189	14,629	14,687	14,733	14,691	14,823
FINANCE, INSURANCE, AND REAL ESTATE	4,526	4,760	4,778	4,777	4,563	4,719	4,737	4,774	4,792	4,815
SERVICES	15,316	16,237	16,230	16,056	15,197	16,127	16,169	16,270	16,312	16,350
GOVERNMENT	15,352	15,703	15,694	15,530	15,114	15,445	15,483	15,472	15,478	15,491
FEDERAL	2,711	2,746	2,733	2,717	2,736	2,752	2,760	2,757	2,734	2,742
STATE AND LOCAL	12,641	12,957	12,961	12,813	12,378	12,693	12,683	12,715	12,744	12,749

p=preliminary.

Table B-2. Average weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	Dec. 1978	Nov. 1978	Dec. 1978 p	Jan. 1979 p	Jan. 1978	Sept. 1978	Oct. 1978	Nov. 1978	Dec. 1978 p	Jan. 1979 p
TOTAL PRIVATE	35.1	35.8	36.1	35.2	35.5	35.8	35.9	35.8	35.9	35.7
MINING	43.9	43.6	43.6	42.6	42.8	43.0	43.0	43.3	43.8	43.6
CONSTRUCTION	33.0	36.5	37.1	34.8	36.3	37.0	36.9	36.8	37.1	36.1
MANUFACTURING	39.2	40.9	41.4	40.0	39.5	40.4	40.5	40.7	40.7	40.6
Overtime hours	3.3	3.8	3.9	3.5	3.5	3.6	3.6	3.7	3.8	3.8
DURABLE GOODS	39.8	41.6	42.3	40.6	40.4	41.1	41.2	41.4	41.5	41.2
Overtime hours	3.4	4.1	4.3	3.8	3.7	3.8	3.9	4.0	4.1	4.2
Lumber and wood products	37.8	39.9	40.1	38.2	39.3	39.6	40.1	40.1	40.1	39.7
Furniture and fixtures	37.4	39.5	40.2	38.2	38.4	38.8	39.0	39.2	39.3	39.1
Stone, clay, and glass products	39.1	42.1	42.2	40.3	40.0	41.8	41.8	41.9	42.0	41.2
Primary metal industries	41.1	42.2	42.5	41.8	41.8	41.8	42.1	42.3	42.2	41.7
Fabricated metal products	39.9	41.6	42.2	40.6	40.3	40.9	40.8	41.1	41.4	41.0
Machinery, except electrical	41.0	42.5	43.4	42.0	41.1	41.9	42.0	42.2	42.3	42.1
Electric and electronic equipment	39.3	40.7	41.3	40.4	39.7	40.1	40.3	40.4	40.5	40.6
Transportation equipment	40.5	43.0	46.5	40.9	41.6	42.5	42.6	42.9	42.9	42.0
Instruments and related products	39.9	41.3	41.8	40.9	41.8	42.9	40.9	40.9	41.0	41.4
Miscellaneous manufacturing	37.5	39.3	39.3	38.8	38.0	39.0	38.8	38.8	38.8	39.4
NONDURABLE GOODS	38.2	39.6	39.9	39.1	38.8	39.4	39.3	39.6	39.5	39.7
Overtime hours	3.0	3.3	3.3	3.0	3.2	3.2	3.2	3.2	3.3	3.2
Food and kindred products	39.1	40.1	40.3	39.6	39.7	39.5	39.9	40.0	40.0	40.2
Tobacco manufacturers	37.0	38.6	38.7	37.9	37.6	37.9	38.7	37.4	38.0	38.4
Textile mill products	39.3	40.6	40.9	40.3	40.3	40.4	40.3	40.4	40.5	41.3
Apparel and other textile products	33.1	36.0	35.9	34.4	33.7	35.2	35.7	35.7	35.7	35.1
Paper and allied products	42.2	43.3	43.4	42.6	42.5	42.7	42.6	43.1	42.7	42.9
Printing and publishing	36.6	38.1	38.2	37.1	37.4	37.6	37.7	37.9	37.6	37.7
Chemicals and allied products	41.3	42.3	42.4	41.7	41.6	41.8	41.9	42.1	41.9	42.0
Petroleum and coal products	42.5	44.0	43.8	43.3	43.1	43.8	43.9	44.2	43.7	43.9
Rubber and misc. plastics products	39.8	41.4	42.0	41.3	40.2	41.0	41.0	41.1	41.3	41.7
Leather and leather products	35.8	37.0	37.2	36.8	36.5	37.2	37.1	36.8	36.8	37.6
TRANSPORTATION AND PUBLIC UTILITIES	39.4	40.0	40.4	39.7	40.0	40.1	40.1	40.0	40.2	40.3
WHOLESALE AND RETAIL TRADE	32.2	32.5	33.1	31.9	32.7	32.8	32.9	32.8	32.9	32.8
WHOLESALE TRADE	38.4	38.9	39.1	38.8	38.7	39.0	38.9	38.8	38.9	38.7
RETAIL TRADE	30.2	30.6	31.3	29.9	30.9	30.9	31.0	30.9	31.0	30.5
FINANCE, INSURANCE, AND REAL ESTATE	36.4	36.3	36.3	36.3	36.3	36.5	36.6	36.3	36.3	36.2
SERVICES	32.8	32.6	32.6	32.4	33.0	32.8	32.8	32.7	32.6	32.6

[1] Data relate to production workers in mining and manufacturing; to construction workers in construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls.

p = preliminary.

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers[1] on private nonagricultural payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	Jan. 1978	Nov. 1978	Dec. p 1978	Jan. p 1979	Jan. 1978	Nov. 1978	Dec. p 1978	Jan. p 1979
TOTAL PRIVATE	$5.47	$5.86	$5.90	$5.95	$192.00	$210.50	$212.99	$209.84
Seasonally adjusted	5.86	5.87	5.91	5.94	193.63	211.15	212.17	212.56
MINING	6.91	8.05	8.07	8.25	269.53	352.59	351.95	351.85
CONSTRUCTION	8.34	8.88	8.92	8.98	275.22	328.12	330.04	312.50
MANUFACTURING	5.97	6.38	6.47	6.47	234.02	260.34	267.86	253.80
DURABLE GOODS	6.36	6.81	6.90	6.99	252.73	283.30	292.72	279.73
Lumber and wood products	5.39	5.76	5.78	5.80	203.74	229.82	231.78	221.56
Furniture and fixtures	4.55	4.80	4.86	4.90	170.17	189.60	195.37	187.18
Stone, clay, and glass products	6.08	6.53	6.56	6.60	236.16	276.41	276.83	265.98
Primary metal industries	7.86	8.52	8.55	8.56	323.05	359.58	363.80	354.38
Fabricated metal products	6.11	6.56	6.62	6.58	243.79	270.76	279.36	267.15
Machinery, except electrical	6.53	7.00	7.13	7.07	267.73	297.53	309.46	296.94
Electric and electronic equipment	5.66	5.98	6.10	6.10	222.48	248.39	251.93	246.84
Transportation equipment	7.59	8.27	8.40	8.32	307.40	355.61	373.80	340.29
Instruments and related products	5.58	5.81	5.92	5.92	221.05	240.78	247.46	242.13
Miscellaneous manufacturing	4.58	4.80	4.87	4.90	171.75	188.64	191.39	190.12
NONDURABLE GOODS	5.39	5.70	5.75	5.81	205.52	226.86	229.43	227.17
Food and kindred products	5.63	5.97	6.01	6.08	220.13	239.40	242.80	240.77
Tobacco manufactures	6.03	6.18	6.36	6.67	223.11	238.55	246.13	252.13
Textile mill products	4.17	4.45	4.48	4.52	163.88	180.67	183.23	182.16
Apparel and other textile products	3.85	4.04	4.07	4.16	127.44	145.44	146.11	143.10
Paper and allied products	6.27	6.75	6.79	6.84	264.59	292.28	296.69	290.53
Printing and publishing	6.33	6.66	6.67	6.76	232.94	252.98	254.79	250.05
Chemicals and allied products	6.76	7.22	7.27	7.33	280.01	335.81	308.25	305.66
Petroleum and coal products	8.81	8.75	8.87	8.87	357.43	349.39	388.51	388.07
Rubber and misc. plastics products	5.38	5.69	5.77	5.79	212.53	235.57	242.34	239.13
Leather and leather products	3.80	3.98	4.00	4.16	136.04	147.26	148.80	153.09
TRANSPORTATION AND PUBLIC UTILITIES	7.38	7.72	7.76	7.78	289.20	308.80	313.50	308.87
WHOLESALE AND RETAIL TRADE	4.58	4.80	4.79	4.94	146.19	156.30	158.55	157.59
WHOLESALE TRADE	5.67	6.08	6.15	6.18	217.73	235.90	240.47	237.31
RETAIL TRADE	4.10	4.30	4.29	4.45	124.23	131.58	134.28	133.06
FINANCE, INSURANCE, AND REAL ESTATE	4.76	5.03	5.04	5.11	173.26	182.59	182.95	185.49
SERVICES	4.89	5.13	5.16	5.24	160.39	167.24	168.22	169.78

p=preliminary.

[1] See footnote 1, table B-2.
[2] See footnote 2, table B-2.

ESTABLISHMENT DATA

Table B-4. Hourly earnings index for production or nonsupervisory workers[1] on private nonagricultural payrolls by industry division, seasonally adjusted

(1967=100)

Industry	JAN. 1978	AUG. 1978	SEPT. 1978	OCT. 1978	NOV. 1978	DEC. P 1978	JAN. P 1979	Percent change from— JAN. 1978–JAN. 1979	Percent change from— DEC. 1978–JAN. 1979
TOTAL PRIVATE NONFARM:									
Current dollars	206.0	214.6	216.2	218.0	219.0	220.3	222.2	7.9	0.9
Constant (1967) dollars	109.9	109.7	108.7	108.8	108.7	108.6	N.A.	(2)	(3)
MINING	214.7	244.5	247.1	249.7	249.8	249.8	252.6	15.0	1.1
CONSTRUCTION	198.8	209.2	209.9	210.6	211.4	212.7	214.1	7.7	.6
MANUFACTURING	208.1	217.5	218.9	220.8	222.4	224.0	225.0	8.1	.5
TRANSPORTATION AND PUBLIC UTILITIES	223.8	231.2	233.3	234.0	234.7	236.5	237.3	6.1	.3
WHOLESALE AND RETAIL TRADE	199.9	208.3	209.9	211.6	211.0	214.1	217.3	8.7	1.5
FINANCE, INSURANCE, AND REAL ESTATE	187.7	196.0	198.2	199.8	200.8	200.8	201.4	7.3	.3
SERVICES	207.0	212.9	214.8	217.5	217.8	218.8	221.7	7.1	1.3

[1] See footnote 1, table B-2.
[2] PERCENT CHANGE WAS -.7 FROM DECEMBER 1977 TO DECEMBER 1978, THE LATEST MONTH AVAILABLE.
[3] PERCENT CHANGE WAS .0 FROM NOVEMBER 1978 TO DECEMBER 1978, THE LATEST MONTH AVAILABLE.

N.A. = not available.
P=preliminary.

NOTE: All series are in current dollars except where indicated. The index excludes effects of two types of changes that are unrelated to underlying wage-rate developments: Fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes in the proportion of workers in high-wage and low-wage industries.

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry, seasonally adjusted

(1967=100)

Industry division and group	1978												1979
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec. P	Jan. P
TOTAL PRIVATE	116.2	117.1	119.1	120.4	120.3	120.6	120.6	120.4	120.8	121.6	122.4	122.9	122.6
GOODS-PRODUCING	99.3	100.9	103.6	106.3	105.1	106.0	106.1	105.4	105.5	106.5	108.0	109.0	108.5
MINING	105.6	106.8	111.3	144.2	143.1	144.0	143.5	145.7	144.4	145.2	148.0	149.9	149.9
CONSTRUCTION	100.3	104.2	111.5	118.8	117.1	122.8	124.2	122.8	122.6	123.8	124.3	126.1	121.9
MANUFACTURING	98.9	100.1	102.0	102.5	101.6	101.7	101.6	101.0	101.2	102.1	103.7	104.5	104.8
DURABLE GOODS	100.5	101.9	103.9	104.2	103.5	103.8	104.0	103.5	103.9	105.5	107.1	108.2	107.9
Lumber and wood products	113.2	114.0	116.3	115.0	111.8	113.6	112.3	110.7	111.6	113.9	115.3	115.8	114.6
Furniture and fixtures	106.1	111.1	112.5	112.5	110.3	109.5	108.3	106.4	106.2	107.5	108.6	109.7	109.7
Stone, clay, and glass products	106.9	108.4	111.0	112.7	111.4	112.9	111.1	109.8	110.1	110.8	112.0	113.3	111.1
Primary metal industries	92.2	93.4	92.8	92.9	93.9	94.1	94.4	95.3	95.5	96.9	99.0	99.2	98.1
Fabricated metal products	99.4	101.4	102.9	103.5	103.3	102.8	102.0	101.8	102.3	103.1	105.2	106.8	106.0
Machinery, except electrical	108.6	107.1	108.4	110.1	109.5	111.3	112.1	110.8	111.5	113.6	114.5	116.5	116.6
Electric and electronic equipment	97.3	98.8	101.2	100.4	99.8	99.8	101.8	101.1	100.1	101.4	102.6	103.2	104.8
Transportation equipment	94.9	93.7	97.2	97.5	96.6	95.8	96.2	96.1	97.7	100.4	102.8	103.9	101.8
Instruments and related products	116.3	117.5	123.5	121.7	120.8	122.4	123.6	123.9	123.9	124.5	125.7	126.6	130.0
Miscellaneous manufacturing industry	97.4	99.0	102.6	102.6	101.5	101.4	99.8	100.6	100.3	100.9	101.8	101.2	104.5
NONDURABLE GOODS	96.5	97.4	99.2	99.9	98.9	98.7	98.1	97.2	97.2	97.2	98.8	99.2	100.2
Food and kindred products	94.5	94.7	96.2	96.4	94.6	94.0	93.6	91.4	91.3	92.2	94.6	95.9	97.9
Tobacco manufacturers	77.9	79.4	82.0	80.2	81.5	84.1	78.6	71.5	74.5	73.5	73.5	76.1	78.2
Textile mill products	92.6	92.5	93.7	93.4	92.6	91.8	91.5	91.2	91.8	91.6	92.4	92.5	94.1
Apparel and other textile products	85.6	90.1	91.6	93.2	91.9	91.4	90.1	90.1	90.1	88.7	90.0	90.1	89.3
Paper and allied products	98.7	99.1	101.6	102.4	101.9	101.9	101.9	99.2	99.0	98.2	100.5	100.1	101.4
Printing and publishing	96.7	96.9	99.3	99.1	98.2	98.6	99.1	98.3	97.8	98.5	100.3	100.8	101.1
Chemicals and allied products	104.4	104.8	106.0	106.5	106.9	106.9	106.6	106.0	106.0	106.2	107.2	107.2	108.7
Petroleum and coal products	119.9	119.0	121.3	122.1	118.8	120.4	121.2	123.2	122.7	123.0	124.7	124.2	122.1
Rubber and misc. plastics products	141.0	140.1	144.5	147.3	146.6	147.0	146.2	145.8	145.3	147.0	149.6	152.8	154.1
Leather and leather products	68.0	67.8	69.1	71.3	70.4	70.1	67.1	69.1	69.6	68.8	67.3	66.7	66.8
SERVICE-PRODUCING	127.9	128.4	129.8	130.5	130.5	130.7	130.7	130.8	131.4	132.0	132.3	132.6	132.3
TRANSPORTATION AND PUBLIC UTILITIES	107.0	107.7	109.1	108.7	109.0	109.4	106.5	107.7	108.2	109.9	110.2	111.0	111.7
WHOLESALE AND RETAIL TRADE	123.7	124.2	125.9	126.4	126.8	126.8	127.4	127.2	127.5	128.2	128.4	128.6	127.5
WHOLESALE TRADE	123.1	123.9	125.3	126.0	125.2	126.1	125.7	126.1	127.1	127.4	127.6	128.3	126.0
RETAIL TRADE	123.9	124.4	126.1	126.6	127.3	127.0	128.0	127.7	127.7	128.5	128.7	128.7	127.3
FINANCE, INSURANCE, AND REAL ESTATE	134.3	135.1	135.9	137.5	136.2	137.9	139.0	139.2	139.6	140.5	140.6	141.0	141.7
SERVICES	141.7	141.8	143.3	144.1	143.8	143.9	144.1	144.1	145.1	145.0	145.6	145.7	145.6

[1] See footnote 1, table B-2.
[2] See footnote 2, table B-2.

P=preliminary.

Table B-6. Indexes of diffusion: Percent of industries in which employment[1] increased

Year and month	Over 1-month span	Over 3-month span	Over 6-month span	Over 12-month span
1976				
January	78.2	85.8	87.2	85.2
February	72.4	84.9	85.8	84.0
March	69.5	81.4	82.0	85.2
April	70.1	72.4	75.6	78.8
May	58.1	67.2	68.3	82.6
June	57.8	65.1	71.2	79.9
July	58.4	57.8	63.1	78.5
August	49.1	64.0	65.1	77.6
September	64.8	53.8	66.3	80.2
October	47.1	65.1	73.3	80.8
November	67.4	64.2	78.8	80.8
December	66.6	81.4	81.4	82.6
1977				
January	76.2	83.1	88.1	78.8
February	66.0	86.3	87.8	80.5
March	74.7	81.1	85.2	80.2
April	68.0	79.4	79.4	84.6
May	64.8	76.2	75.9	84.0
June	71.2	68.0	72.1	83.1
July	59.3	63.4	69.8	82.6
August	51.7	58.7	74.1	83.7
September	60.8	62.5	72.1	82.6
October	60.5	73.8	77.9	81.1
November	73.8	75.3	82.0	81.1
December	72.1	79.7	83.1	80.8
1978				
January	69.8	80.2	85.5	80.5
February	70.3	80.2	79.9	79.1
March	70.1	75.9	77.9	77.6
April	62.8	67.4	68.9	78.5
May	56.4	63.7	67.7	80.5
June	67.2	62.5	59.6	81.7p
July	54.9	57.0	61.3	78.2p
August	51.7	49.7	74.4	
September	57.6	58.7	74.7p	
October	70.6	75.6	78.2p	
November	80.2	83.1p		
December	75.6p	82.8p		
1979				
January	71.8p			
February				
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

[1] Number of employees, seasonally adjusted, on payrolls of 172 private nonagricultural industries.
p = preliminary.

Senator BENTSEN. Thank you very much, Commissioner.

I apologize for my voice. I have taken an amount of antihistamine for the February throat here.

What do these figures tell us about the underlying strength of the economy? Doesn't it look like it is strong and relatively well balanced?

Don't they confirm the point that there is no sign in the economy at the moment of a recession?

Ms. NORWOOD. That is absolutely true, Senator. The data clearly show an economy continuing to perform at high rates of employment.

Senator BENTSEN. Are you encouraged by the increase in employment of the teenagers?

Ms. NORWOOD. The increase in employment of teenagers in January did not meet our test for statistical significance, but over the last couple of years, I think there has been some encouraging employment growth.

Senator BENTSEN. Well, in considering this tremendous increase in the number of people employed, do you have a breakdown between part- and full-time employment because I notice the work week went down somewhat.

Ms. NORWOOD. Yes, sir. The work week went down at the private nonfarm economy level about two-tenths of 1 hour. The decline occurred in various places.

Hours in nondurables went up and durable manufacturing went down a bit and there was a decrease in retail trade.

Mr. Stein informs me that there is very little change in part-time/full-time relations.

Senator BENTSEN. The figure remains very constant in these numbers; has it?

Ms. NORWOOD. Yes.

Mr. STEIN. However, all of the over-the-month increase in employment was among full time-workers, Senator.

Senator BENTSEN. What about the slowdown in the middle of the week? Is part of that weather, do you think?

Ms. NORWOOD. It is hard to say. The survey week was really before the bad weather.

Senator BENTSEN. I am pleased to see that BLS is now publishing the employment and unemployment numbers based on Hispanics and we expect that part of the table to be expanded.

Ms. NORWOOD. We would very much like to expand that table, Senator, and we are working quite hard on examining the possibilities.

The difficulty is the time series is not very long and in order to seasonally adjust the data, we need to have longer time series and more experience with the data.

In the meantime, we are trying to put out as much information as we possibly can about the Hispanic population because we believe that it is extremely important.

I think the data show some very interesting developments and I think it is in the public interest for us to be looking at it.

Senator BENTSEN. You show a population base of 7.5 million.

Do you think that is a reasonably accurate count?

Do we have some problems with the counting situation?

Ms. NORWOOD. As a representative of a statistical agency, Mr. Chairman, I should probably always say that there are problems with counting people.

No count is exact, but I do think that very strong measures are taken by the Census Bureau in this case to attempt to compensate, to attempt to go out and find the so-called missing population.

It is a difficult thing to do and I think that we have had considerable improvement in this area in the last few years.

Senator BENTSEN. We have seen a very erratic report in productivity and manufacturing activity in that last quarter of last year.

The rise was a very small eight-tenths of 1 percent following a very large increase in the third quarter of something over 10 percent, as I recall.

What causes that kind of a decline in the productivity numbers? Can you tell me why you think that decline took place?

Ms. NORWOOD. There are, of course, various factors which affect productivity.

First of all, what happens to output and, then compensation and employment.

We have had continued strong employment. We have had, as I indicated in my statement, rather high rates of change in compensation.

Output in the last quarter was up considerably and that certainly affected manufacturing.

In manufacturing we have had very strong growth—over the year, that is—compared to the rest of the economy.

We had a 2.5-percent increase.

Senator BENTSEN. Well, a lot of people think of labor as being the primary determinant in overall productivity but capital productivity is equally important, and in fact more so.

What is the rate of improvement of the existing capital stock, the plant and equipment, of the United States over the last 5 years or whatever period you have, which would be informative. How satisfactory are BLS reports in determining productivity?

I am, indeed, concerned, as are many members of this committee, as to what is happening to the productivity of this country.

We know we are not going to turn it around overnight. We will try to improve it if we can, at the same rate productivity went down.

We would like to turn this thing around and we are searching for answers to the problem.

Ms. NORWOOD. First, Senator, I do not have the figures on capital equipment here. We can try to provide them to you.

They are basically figures which are prepared by the Bureau of Economic Analysis and we certainly can try to provide them for you.

You are certainly quite right in suggesting that the productivity picture is very perplexing and one element in the puzzle is what is happening to the ratio of capital to labor.

There are other elements that, of course, have gone into the slowdown in productivity in the last few years.

There is the shift in the composition of labor force that probably has had considerable effect since a large number of inexperienced people who have not had much labor force experience have entered the job market.

We would hope that in the future as these people gain more experience that at least that element of the deteriorating picture will be improved.

Senator BENTSEN. Congressman Mitchell has been the first to arrive. Congressman Mitchell.

Representative MITCHELL. Commissioner Norwood, let me thank you, first of all, for giving one of the nicest phrases I have come across in a long time.

I will have it for you in just a moment.

Senator BENTSEN. We will limit the questioning to 10 minutes, because we may have some more members appear at any time.

Representative MITCHELL. I want to thank you for the phrase that you have given to us. It is the phrase "autoregressive integrated" what?

Ms. NORWOOD. I have to look it up myself.

The important thing here, I think, is that we have in the past presented each month a very complex table which had a very large number of different options for essentially the same seasonal adjustment procedure that has been called X–11.

There have been some developments that we think have been quite important and one of them, the one which seems to have the most promise and has in fact been adopted officially in Canada and is being considered at the moment by the Commission to Review Employment and Unemployment, is the one which is called X–11–ARIMA.

I think the important element of that and the reason that we have put it forward and will continue to do so is that we want to look at the differences in the various approaches. I feel that the committee should have the benefit of all of the information that we have.

I am sure you are aware that sometimes the Bureau of Labor Statistics has come up to the Joint Economic Committee and has had to say that we think we have had some problems in the seasonal adjustment of the number in a particular month. It has seemed to me that it is in the public interest to try to have as much out in the public domain as possible about different approaches to this.

Representative MITCHELL. You have given me an area to study.

You have studied the President's budget also. The President or some of his advisers have indicated that there will be a slight growth in unemployment as a result of this budget.

The Chairman of the Federal Reserve System does not think that is logical to happen. I think I recall his testimony from a purely subjective statistical analysis.

Will the President's budget, in your opinion, create an increased amount of unemployment?

Ms. NORWOOD. I don't think that is a question that I can answer. I might say that I don't think that is a question that is clear for anyone to answer.

I think some estimates have been made by the Council of Economic Advisers. I believe the unemployment rate they have used is 6.2 percent.

Representative MITCHELL. Yes.

Ms. NORWOOD. There have been a number of other forecasters who have indicated a somewhat higher range. I really don't think that there is any evidence now which can indicate the particular range that might exist.

Representative MITCHELL. Well, that was not my question inasmuch as I put it at the simplest level first.

Will it result in unemployment? Not necessarily the amount of unemployment, but will it result in unemployment?

Ms. NORWOOD. I think that is a very difficult question to answer. It depends on what happens to the labor force, it depends on what happens to the hours of work and to how much the economy is dampened by the particular circumstances that occur in the coming months.

Representative MITCHELL. You agree with our chairman, Senator Bentsen, that the unemployment rate is pretty small and it looks pretty good right now?

Ms. NORWOOD. Yes.

Representative MITCHELL. Let me take a moment just to trace what I have perceived to be a distinct pattern relating to monetary policy. When the M–1 rates of the monetary policy are exceeded, as they were last year, generally the Federal Reserve says it knows when it has exceeded them. When the Federal Reserve recognizes this, then it puts a damper on the rates changing the cost and interest rates.

Based on studies that my staff has done and I have done, there is a general tendency for a 2-year timelag between slamming on the brakes in monetary policy and the appearance of recessionary policy.

Am I making myself clear?

Based upon those analyses over the last 25 years, what is now occurring with our monetary system would suggest to me that there will be strong recessionary trends 2 years out or 3 years out. Do you care to comment on that?

Ms. NORWOOD. Well, it certainly is quite speculative. I guess the only comment that I would make is that there has been a good deal of discussion about the actual definition of the money supply data, and I believe that the Federal Reserve Board has indicated that it is about to make some changes in those data.

I am not aware of the forecasters who look primarily at unemployment and prices who are looking that far out. There are so many exogenous factors that may come into play, such as oil, for example, gasoline prices, and so on.

Representative MITCHELL. I agree; it is awfully difficult to pin one down precisely, but I think this has been one of the failings of our Government certainly, that we have taken the time to look out 2 years hence, 3 years hence, to measure or attempt to measure what the effect of today's action will be on the labor market in 1981 and 1982.

In a press release there is a note saying that the seasonally adjusted data on Vietnam veterans have been discontinued. I assume you are doing that because you think it is no longer reliable.

Ms. NORWOOD. That is right.

Representative MITCHELL. Why do you believe it is no longer reliable data?

Ms. NORWOOD. The problem, Congressman Mitchell, is that Vietnam era veterans, like the rest of the population, grow older year by year. The people who were in the Armed Forces during the Vietnam era, that is, the total group of persons remains the same; there are no new people going into it. What has happened is that the particular 5-year age groups have changed markedly. That is, the 20- to 24-year-old group is getting smaller and smaller, and the 35- to 39-year-old group is getting somewhat larger. Because of this shift in the age distribution and the very, very small numbers that we have in the 5-year

age groups, particularly at the beginning and at the end of the age groups, the techniques for some seasonal adjustment become very difficult, and we have felt that the best thing to do is to look at this on a year-over-year basis.

Representative MITCHELL. All right. The Chair advises me I have time for one question.

You cite 30.9 percent for black teenagers. I think that is remarkably understated. Have you been able to gage how much underestimation occurs, let's say, as a result of not counting discouraged teenagers?

Let me just say one other thing. Let me just make one other point. You go to the mayors of cities, and they do their own kinds of analyses. Generally they are talking about almost a 50-percent black teenage unemployment. You only have 34 percent. It is low. I think it may be in part because, just like their adult counterparts, black youth get discouraged and simply don't go out and look for a job.

What factor do you use to represent the underestimation in this category?

Ms. NORWOOD. The Current Population Survey procedures are the same for all groups of the population, and black teenagers as white teenagers are classified according to whether they are working, looking for work, or are outside the labor force.

We do have a count of discouraged workers, that is, the people who have said that they are not looking for work because they believe that no job is available for them, either because of the economic situation or for some personal reasons, such as being handicapped, lacking training, or believing that they are too young or too old to get jobs. Those data are published on a quarterly basis and, if you like, we certainly could try to do a special count of black teenagers and provide that for the record.

Representative MITCHELL. I wish you would.

[The information referred to follows:]

In 1975, the annual average number of unemployed black (and other racial minority) teenagers was 347,000, and their unemployment rate was 36.9 percent. when the 54,000 "discouraged" black teens are included among the jobless, the unemployment rate rises to 40.3 percent. In 1978, there was an average of 381,000 unemployed black teenagers, a jobless rate of 36.3 percent, 44,000 "discouraged" black teens, and an unemployment rate including the "discouraged" of 38.8 percent.

Representative MITCHELL. Thank you. My time is up.

I think it is important that we look at the discouragement factor in the black category also because I think it is significant.

Thank you, Mr. Chairman.

Senator BENTSEN. Senator McClure.

Senator MCCLURE. Thank you, Mr. Chairman.

I hate to interrupt that line of questioning because I think all of us here are interested in that particular problem, and I think we all share the concern.

There was some reference made in your statement, and again in response to questions concerning changes in the labor force participation rate. That is something that has been going on for 15 years, has it not? Is the change in labor force participation rate an increasing rate of change, or has it been a relatively stable phenomenon? In

other words, is the labor force participation rate changing at a rather constant rate over the years?

Ms. NORWOOD. I think to answer that question one really needs to look at the particular groups in the labor force. There has been, in general, over a long period of time, a secular decline in the labor force participation of adult men. There has been a rapidly increasing rate of labor force participation for women.

Senator MCCLURE. That has been going on for a number of years, has it not?

Ms. NORWOOD. That is right.

Senator MCCLURE. Are there well over 50 percent of the women in the country now participating in the labor force?

Ms. NORWOOD. That is right, Senator.

Senator MCCLURE. I think that your statement indicates that 71 percent of those women also had children at home under the age of 18. There were indications in your statement that large numbers of women were added to the labor force this year; you say 1.8 million in one place, and nearly 2 million in another place. This was also true the year before, was it not, and the year before that?

All I am trying to get at is whether or not this is something that is a new phenomenon or a continuing fact.

Ms. NORWOOD. I think, Senator, that it is a continuing phenomenon, but the rate of increase has been unusually high for the past 3 years.

Senator MCCLURE. Could you provide information to us that would show that trend over the years so that we can see whether or not it is an accelerating trend or whether or not it is relatively constant?

Ms. NORWOOD. Certainly.

[The following information was subsequently supplied for the record:]

RECENT TRENDS IN LABOR FORCE GROWTH

The Nation's labor force has been growing at an unusually rapid pace over the past two years. The most important reason for this rapid growth has been the accelerating rise in labor force participation on the part of women. Also contributing to this unusual growth has been a change in participation trends for some population groups, such as older workers and black males.

On an annual average basis, the civilian labor force was 2.8 million higher in 1978 than in 1977. This gain—which was exceeded only by the rise posted between 1945 and 1946, when millions of men were being demobilized—compares with a 2.6 million increase for 1977 and a 2.2 million rise for 1976. (The 1977–78 change has been adjusted downward by about 200,000 to reflect a small discontinuity brought about by an expansion of the household survey sample.)

The data for recent months do not show any signs of a tapering off in labor force growth. For example, the January 1979 level was 3.0 million above the level for January 1978.

Table 1, attached, shows the principal contributors to labor force growth over the past 3 years. It indicates that women have accounted for nearly two-thirds of the increases over this period. It also indicates growing contributions by older workers and by blacks, two groups for whom participation trends have changed considerably over the past couple of years.

The attached charts track the trends in participation rates on a quarterly basis for all persons 16 and over and separately, for men, women, and persons 55 and over. The recent changes in participation trends stand out quite prominently in these charts. The attached charts also indicate that labor force growth has generally slackened during (or immediately following) recessionary periods, and such cyclical pauses could be expected to occur again if economic growth should taper off significantly.

During the 1980's, the growth of the population of working age will slow down considerably, and this is bound to have a negative impact on labor force growth. To a certain extent, however, the population slowdown may be offset by further increases in labor force participation.

As noted above, women have been the principal contributors to labor force growth in recent years. Short of a recession, further increases in their participation rates are likely in the near future. There are no signs of definite upturn in the fertility rate, which is still at very low levels. (There is, however, a school of thought among demographers that is predicting such an upturn for the early 1980's.)

Recent trends have some implications for the long-term projections (to 1990) published by BLS in 1978. Except for those in the "high-growth scenario," these were made by extrapolating from trends that were not rising as rapidly as the trends for recent years. Thus, the paths which these projections follow for 1979 and 1980 are considerably lower than the actual levels which the labor force is likely to reach over the next couple of years. The current labor force levels are even slightly higher than those implicit in the BLS high-growth projections.

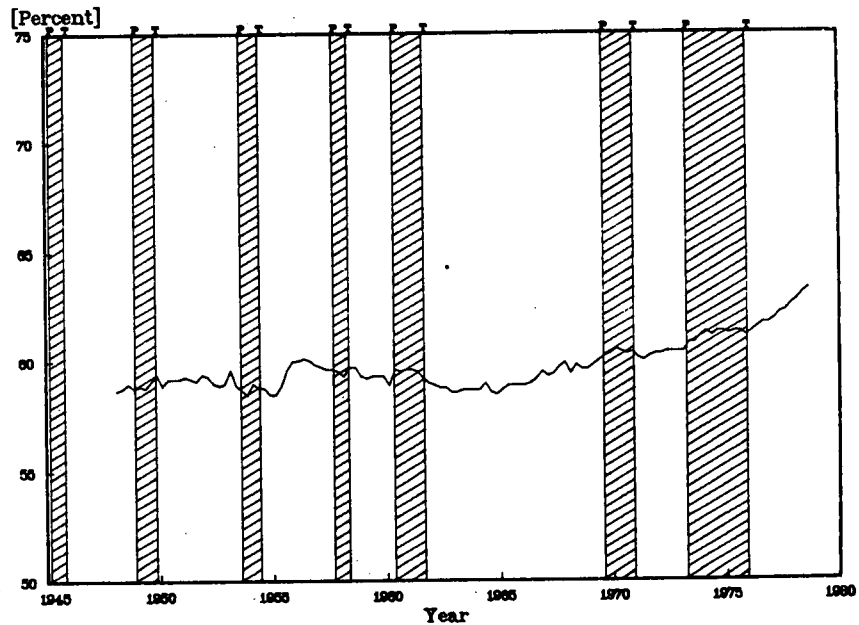
In summary, labor force growth has been extremely rapid over the past couple of years, with an acceleration in the flow of women into the job market and with a tapering off of the outflow of those groups whose participation rates had been in a secular decline. There are as yet no signs of any impending slowdown in labor force growth.

TABLE 1.—CHANGES IN LABOR FORCE LEVELS OVER THE 1975–78 PERIOD, WITH CONTRIBUTIONS OF MAJOR POPULATION GROUPS

Population group	Changes in thousands			Percent changes		
	1975–76	1976–77	1977–78	1975–76	1976–77	1977–78
Both sexes, 16 yr and over	2,160	2,628	3,019	2.3	2.8	3.1
Men, 16 and over	744	1,090	1,093	1.3	1.9	1.9
Women, 16 and over	1,416	1,538	1,926	3.8	4.0	4.8
Both sexes, 16 to 24	651	769	778	2.9	3.4	3.3
Both sexes, 55 and over	−12	167	276	−.1	1.2	1.9
Black and other races	368	397	669	3.5	3.6	5.9

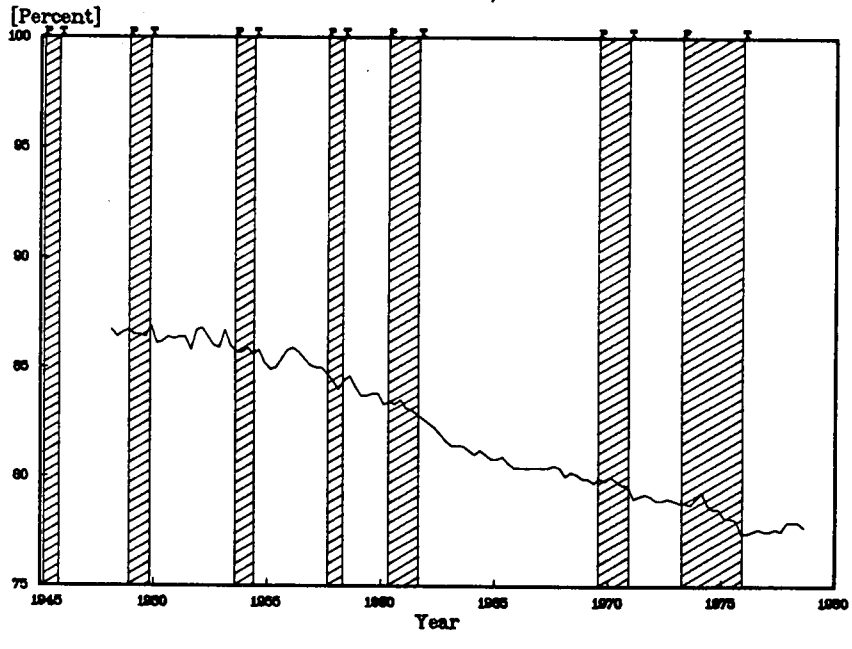
Quarterly civilian labor force participation rate

Both sexes, 1948–78



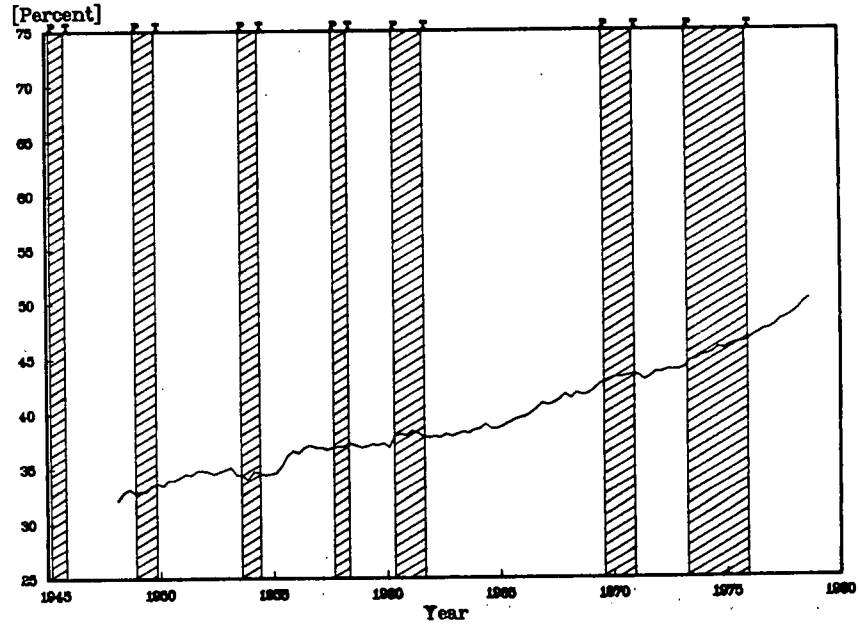
Quarterly civilian labor force participation rate

Men 16 and over, 1948–78



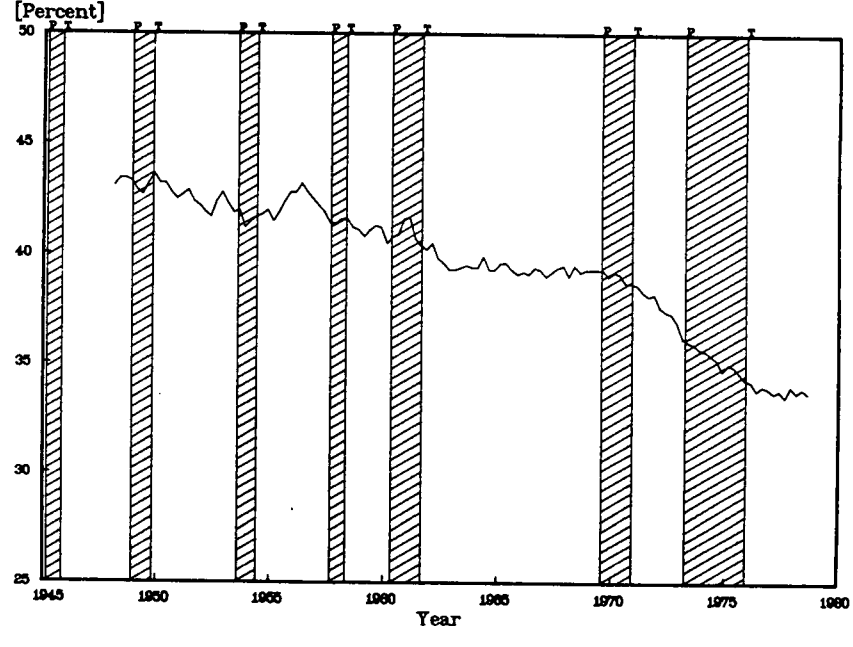
Quarterly civilian labor force participation rate

Women 16 and over, 1948–78



Quarterly civilian labor force participation rate

Both sexes 55 and over, 1948–78



Senator McCLURE. You might also try, if you can, to give us some estimate of what we can expect in the forseeable future in trends of the labor force participation among various subgroups, because if, as a matter of fact, we have a very large increase in one segment, then it would seem that at some point it must diminish as a percentage factor as it has relatively run its course.

Of course, I think one of the reasons—that appears to me at least to be a logical reason—for that increase is the emerging status of women in our society and also the economic necessities of families that just can't make both ends meet and still maintain the standard of living that they would like to maintain if there were only one wage earner in the family.

Housing costs have risen more rapidly than most other costs. I don't, for the life of me, understand how a young family can get into a house of their own. That is one of the reasons why the mobile home industry, or factory-built home industry, a way of reducing costs, has grown so remarkably in recent years. If the average cost of a house now exceeds $50,000—and in many areas of our country the average house costs $60,000—how in the world does a young couple with a family responsibility and the current tax liability save up enough money to get even the low downpayment required. If they put the money in a savings account to accumulate, they have to do that after they have paid their taxes and paid all of their overhead for their family. And then, if they get any interest on that savings, they are taxed on that, too.

We have made it easier by reducing downpayment requirements. We have made it easier by increasing the payment periods. It is not unusual to see two wage earners in a family with the entire paycheck of one of them going to pay housing costs; $400, $500, or $600 a month is not at all unusual today. Well, if it is not unusual, it means there must be two wage earners in that family, one of whom is dedicated to keeping the roof over their heads.

Do you have statistics that would indicate that relationship between those factors?

Ms. NORWOOD. I am not sure, Senator, that we can exactly address that point. I think it certainly is true that people work for different reasons. The large increase in multiearner families is in part due to the fact that many people work because they have to work. That is not the total reason, but that certainly is an important element. Some of that may well be due to the inflationary costs that families face. Some of it, however, I think also is due to the expectations that American families have. They believe that things are always going to get better and that our standard of living should be improved, and so you find many people are coming into the labor force in order to have a better house, in order to send the children to college, a few things that 20 or 25 years ago were not done.

I think in addition there is a different social attitude toward all of the members of the family, not just the women. In some cases women are going to work because they, as individuals, want to go to work, in addition to the particular economic situation of the family; but we also have many teenagers, I think, in some areas and in some income groups, who feel that they are increasingly independent citizens and that they ought to be getting some experience in the labor market.

So in some areas we do find, I think, increasing participation of teenagers as well. It is a whole series of factors that is involved.

Senator McCLURE. Do you in your statistics have any measurement of the presence of illegal aliens?

Ms. NORWOOD. No, sir, we do not. That is a very difficult area. Illegal aliens who are on establishment payrolls would be counted like other employees in our establishment survey because anyone who is on the payroll of the establishment is included.

In the household survey too, an alien's legal status cannot be determined because, after all, the Census Bureau which conducts the survey for us cannot very well go to the household and ask whether the people are here legally or illegally. Many of the people who respond, I am sure, are certainly people who may have just come to this country either legally or illegally.

Senator McCLURE. Have you made any efforts to ascertain the numbers of aliens who are either participating illegally in the work force or are seeking to participate in the work force?

Ms. NORWOOD. The Bureau of Labor Statistics has not done so, Senator, but the Department of Labor has made several attempts and has some research contracts under which such work is going on. In addition, of course, the primary responsibility for determining the number of illegal aliens in this country has been that of the Immigration and Naturalization Service and, as I understand it, they are doing quite a bit of work.

Senator McCLURE. Are you aware of the results of their labors?

Ms. NORWOOD. No, I am not. I don't believe that they have come up with any comprehensive figures.

Senator McCLURE. The reason I ask the question is that I think it is a growing problem; yet I think there are several subproblems. I think you have to separate agricultural labor from ordinary labor for this. I think you also must divide agricultural labor into two segments, permanent year-round agricultural labor and the seasonal labor force. Illegal aliens have had the highest visibility in the seasonal labor force, and that happens to be where Immigration and Naturalization finds it easiest to locate these people. However, that is probably statistically and economically the smallest and least important group with respect to any impact upon the U.S. labor force.

I think, however, it is easier to operate there; they can show greater results there. Almost nothing has been done with the urban areas where the greatest number of these people live and work. There is also a tie-in between this and the easy access to the U.S. welfare system for citizens and aliens alike.

It is not just simply a matter of people seeking work across the border from Mexico. They know all they have to do is get up here, walk in and get on welfare without questions being asked. Why wouldn't they? And so, of course, they do. This is a continuing problem, and I hope sometime that there is an effort made to relate this to the statistics which you are measuring.

I would hope that you might do that, in connection with the other elements from the Department of Labor, and the Immigration and Naturalization Service. I think it is becoming an increasingly significant factor, particularly in the service trades along the east coast of the United States.

Ms. NORWOOD. Certainly we have a very great interest in the work that is going on in this area, Senator. The measurement problems are quite difficult. We do, however, expect to watch this with care and to review with care the results that the Immigration and Naturalization Service comes up with.

The Department of Labor, of course, has a very real interest in this. Secretary Marshall has done a great deal in this area, and I am sure that the Immigration and Naturalization people will be doing whatever they can, and we certainly will be cooperating with them to the extent possible.

In terms of our own statistical programs, it is really very difficult to figure out an approach which would really collect data from the general population.

Senator MCCLURE. I can see the difficulty, but also it seems to me that somewhere, somehow, we are going to have to acquire that information. Somehow we have to modify the problem. Somehow we have to deal with it.

Ms. NORWOOD. I think attempts are being made, sir.

Senator MCCLURE. I am sure they are. My question is ho effective those are. One of the great values of the Bureau of Labor Statistics over the years has been its independence from the political ebb and flow that swirls around almost every other program and effort by Government.

One of the reasons for your credibility is that independence. That is one of the reasons, too, that many of us look to you for information concerning these politically loaded problems, because it is one area where we can get reasonably objective information to deal with some of these sensitive political issues. And I think this is one of those issues.

Ms. NORWOOD. I agree with that, Senator. I also hope that one of the reasons for the credibility of the Bureau of Labor Statistics is that we try to be quite open with the Congress and the public about the difficulties that exist in developing reliable data.

Senator MCCLURE. I understand that, but that does not mean that you have never shirked it before or shrunk from it.

Ms. NORWOOD. No, sir. We have found it a challenge.

Senator MCCLURE. Because this is difficult. I think this is difficult, but that does not mean that you should withdraw from the fray.

Ms. NORWOOD. No, we do not intend to.

Senator MCCLURE. Thank you very much, Senator.

Senator BENTSEN. Commissioner, let me get back to some acronyms. The determination of wage benefit settlements, differ between BLS and CWPS because CWPS includes estimates of quotas; the other one gets diatetic, I guess, because it excludes increases in the cost of maintaining health benefits and the increases in the cost of existing pension benefit maintenance and the cost of legally required social insurance programs.

Now, considering these exclusions, which would be the more accurate representation?

Ms. NORWOOD. The differences, I believe, are that the Bureau of Labor Statistics measures, as we do in all of our programs, the facts that we have and the situation which exists as of the time that the estimates are made. The basic difference between the Bureau of Labor

Statistics measurement of the settlements and the CWPS measurement is that the Council on Wage and Price Stability makes a forecast of the future years of the contract as to what the rate of increase of the CPI might be and of what the rate of increase in the cost of some of the fringe benefits might be.

We do not do that because our whole tradition has been to rely upon data that we have at the time that we make the estimate.

Senator BENTSEN. Do you think the statistician has a firm handle on the statistics in that he can get accurate projections on the change in capital investment, stock investment, that are devoted to intermediate production, that is OSHA, and that sort of thing as opposed to the completion of an end product?

Ms. NORWOOD. There are certainly difficulties in measuring output, as you are well aware, and I think your question is pointing to some of those difficulties.

Senator BENTSEN. It is important to us to understand the regulatory cost as we try to achieve some of these social objectives that all of us are deeply interested in, but they also have an impact on the cost of living.

Ms. NORWOOD. I think that is true, Senator. I think, on the other hand, we really have to look as well at the cost, as difficult as it may to be determined, of nonregulation. These have to weighed side by side. We certainly have had a cost of ail pollution regulation.

There is a cost, also, of producing dirty air. We have had problems in the mines, for example. There is a cost of producing coal. There is also a cost of producing black lung disease, and that relates certainly to the use of economic resources.

Senator BENTSEN. Commissioner, I certainly agree with that, and that is why I bring up these social objectives. I saw a statement the other day by the EPA administrator saying that on the Clean Air Act the question of cost was not germane and, technically, he may have been right. There have been a lot of volumes written. We know that we think about great benefits as we clean air and we clean water, but we also have to understand the costs on the other side as we try to achieve these things.

As I stated before, coming from Houston, I have some authority on these problems, because we have had about the only body of water in the country for which there is an octane rating. But we have made great progress there, and we reduced the emission of hydrocarbons by 5 percent. We are never going to get to zero emission.

That is where we lose all correlation with reality in these conflicts. That is why I try to pin it down to the extent that I can on both sides.

Ms. NORWOOD. I think that is a great contribution, Senator. It does seem to me that one really has to look at the cost, but one has to look at the cost of both sides.

Senator BENTSEN. That is right. That is why I was trying to find if the statisticians have any serious feel for that.

Ms. NORWOOD. Well, we are working on it.

Senator BENTSEN. All right.

Congressman Mitchell, do you have further questions?

Representative MITCHELL. Yes, I do.

First of all, Commissioner, I want to take you back to some comments that Senator McClure has made.

The illegal problem is growing, it is an enormous problem; it is growing more enormous every day; and in your replies to the inquiry I was discouraged not by what you said but being the way it is operated. If there is going to be a problem, it seems to me that Immigration and the BLS and the Department of Labor ought to be working in tandem so at least we know the dimensions of it.

Ms. NORWOOD. We are. I would be glad to provide a short statement on the availability of data on illegal aliens.

[The information referred to follows:]

AVAILABILITY OF DATA ON ILLEGAL ALIENS

BLS does not collect data on illegal immigrants. Persons who are illegally in the United States are not likely to identify themselves in the household labor force survey. Annual reports of the Immigration and Naturalization Service (INS) suggest a universe of some 4 to 12 million illegal aliens. Other estimates are more modest, ranging from 3 to 6 million.

CURRENT RESEARCH

One of the most well known studies is one conducted by Clarise Lancaster and Frederick Scheuren of the Social Security Administration. They recently estimated a total of about 4 million undocumented aliens in the U.S. as of April 1973. Their research was based on matching 1970 Census and CPS data with IRS income tax records and SSA earnings and benefits records.

The Immigration and Naturalization Survey contracted with a private firm in 1978 to conduct a study of illegal aliens, but we understand that no data are yet available from this study.

Several research efforts on illegal workers have been funded by the Department of Labor's Employment and Training Administration (ETA). Many of the efforts have been authored or co-authored by David S. North. These research efforts, however, are focused on particular alien groups and the findings are not necessarily representative of the alien universe.

In general, these studies present a characterization of undocumented aliens as: predominantly young men; poorly educated; able to speak only limited English; experienced, but unskilled or semiskilled workers; having come to the U.S. to work; having secured jobs with low earnings; and, remaining in the U.S. for an average of about 2 years.

Representative MITCHELL. If I may, when I say working in tandem, I really mean an everyday exchange of information rather than a service relationship that often occurs in bureaucracy. It just seems to me that we need to integrate much more.

At the turn of the century, in statistics classes 101 and 102, we were arguing about the adequacy of the sample and this is still a problem in statistics, I understand. Some members of my staff have taken a look at the sampling techniques, and they have come up with the idea that for every one single black, you deal with about 12,000 white families. In that same sample you should be dealing with approximately 23 black and Hispanic families, but since that does not occur, it leads to a serious undercounting problem.

Now, more specifically, I am advised by staff of the JEC that there is some feeling that the Canadian labor force surveys are better able to discern those who are not in the labor force at the present time but who have a close work attachment and those who are not participants, and divide them into two categories. Those who are not in the labor force are the big category. Some of them are not in the labor force, but want to be there, and others are not in the labor force and discouraged.

What are the advantages of the Canadian survey over our problem of the discouraged workers and as a corollary to that what changes in

the household survey would be necessary in order to include discouraged workers as a part of unemployed on a national basis?

What would be the problems in collecting these statistics on discouraged workers, either at the State level or the national level?

What are the merits of the Canadian system, if, indeed, there are merits? And what do we need to do to enhance our sampling techniques?

Ms. NORWOOD. First, before answering that question, may I just make a comment about the sample sizes? I think the important thing to recognize is that we have a level of reliability. Whenever you develop a sample, you set some goal of reliability of the data, and that goal is always for the aggregate number. When you get down to subgroups of the population in order to have the same level of reliability as for the total population you would need much larger samples.

The samples that we have now are based upon getting a particular level of reliability at the aggregate number.

Insofar as discouraged workers are concerned——

Representative MITCHELL. May I interrupt you?

Ms. NORWOOD. Yes.

Representative MITCHELL. I do remember the dimensions of that problem vaguely, but the point I am trying to make is that I am suggesting those proponents which are of such importance—blacks, Hispanics, and others—that maybe we ought to start to count them, their position, their role, or something more distinctly within the aggregate numbers.

Ms. NORWOOD. I think you are quite right, Mr. Mitchell. I would be surprised, by the way, if it really was the turn of the century, but in any case, you seem to be quite up on modern techniques.

I think that I should tell you that we are already at work looking at the kinds of things that need to be done for the current population survey after the results of the 1980 census are available.

One of the things which clearly should be considered is how much oversampling—that is what we call it, but really how much the sample should be enlarged for the particular demographic groups of the population to have better data.

Now, to get back to your question on discouraged workers, I think that there are really two parts to it: One was the difference between our definition and the Canadian definition.

The basic elements of that difference is the question of how far or how long a period of time the worker has been really interested or says that he has been interested in finding a job.

This is one of the issues that is being considered. The Levitan Commission has gone into considerable detail in looking at the Canadian definitions.

We are certainly prepared to do whatever testing is necessary with redesigning the questions in the questionnaire to see what might need to be done should it be decided that that kind of an approach should be taken.

Representative MITCHELL. I am safe, then, to assume that there will be no change until after the 1980 census?

Ms. NORWOOD. I believe so, yes, sir.

Senator BENTSEN. Senator McClure.

Senator MCCLURE. Thank you very much.

Do you have the figures on the average black teenage unemployment rate of the 10 largest U.S. cities?

Ms. NORWOOD. We can provide it. I do not have it.

Senator MCCLURE. If you would do that, I would very much appreciate it. Thank you.

[The following information was subsequently supplied for the record:]

The 1978 annual average unemployment rate for black teenagers in the central cities of the Nation's 10 largest SMSA's was 41.4 percent.

Senator MCCLURE. Without knowing precisely what the figures are, I think we all know that they are very high. And I think we all realize that it is going to take some efforts that we have not yet undertaken in order to get any dramatic reduction of those figures.

I believe you would agree that there is a consensus in this country that simple economic improvement for the country, as a whole, does not reflect gains in those subgroups in the same way that it reflects gains in the larger labor force figures. And that we reach a point where economic stimulus in order to increase job opportunites generally becomes counterproductive in that it creates inflation more rapidly than it creates jobs for the disadvantaged subgroup.

That, of course, leads back to the old question that we are all debating in order to arrive at some conclusion: Where do we find full employment in economic terms that indicate to us that economic stimulus becomes more inflationary than it does become productive in terms of aiding these subgroups? And when should we then begin to transport our efforts toward targeted assistance to the disadvantaged subgroup?

There are various estimates that we have used to say full employment was achieved at about 4 percent on our unemployment scale.

I think it now is above 5.1 percent—or at least 5.1 percent—and there are many who think it is 5.5 percent.

I don't know whether you care to comment any further for the record on that. We have had a number of comments in the past and I would appreciate yours if you would like to make any other comment.

Ms. NORWOOD. All I would like to say, Senator, is that I noted with great interest the Council of Economic Advisers' report that 5.1 percent was the equivalent of the 4-percent unemployment rate.

There are as many people, of course, who believe that 5.1 percent is too high just as there are people who believe that that is too low.

I think, in response to your earlier comment, the point should be made that whatever the general overall situation is, no matter how good it is, there clearly are particular groups of the population who are not sharing in the prosperous economic conditions that the averages tend to show and that those are rather serious problems for us.

Senator MCCLURE. One of the reasons that I am concerned about the question of the entry into the labor force of people who are aliens and illegally seeking work is that they probably impact most directly on the most seriously disadvantaged groups of our society.

They are in precisely the same areas, the same labor skills, seeking the same kinds of jobs and these most directly substitute for the people who are finding the greatest difficulty in finding jobs.

That is one reason I hope that there will be a real effort made to determine whether or not that assumption, on my part, is a valid one.

I think we focus too much on some areas where the substitution question is not nearly so great or the competition question is not nearly so obvious. It seems to me that we ought to focus our efforts on the areas where the problem is greatest and where the opportunities for improvement are the greatest.

One of our efforts here and in policy in both the Congress and the administration in dealing with targeted aid to those who are in the highest rates of unemployment have been in the Comprehensive Employment Training Act (CETA).

CETA has mixed reviews. In some areas it has done very well; in others it has done very poorly.

Do you, in your statistics, follow the success of the CETA program and do you identify, for instance, those that have been in CETA that then moved into permanent employment?

Ms. NORWOOD. No, sir; we do not follow the specific individuals. The Employment and Training Administration of the Department of Labor, however, has a good deal of information about specific counts and we do get information from them and work with them in trying to help.

Senator MCCLURE. The second question is: One of the problems with CETA has been that for many public bodies who are in the main local prime sponsors, CETA employment has become substitutional of permanent employment.

I would assume, from your earlier answer, that you don't keep separate statistics on that question either.

Ms. NORWOOD. Well, we do not, but that certainly is a very important question. It is a question that the people who are responsible for administering the CETA programs are very concerned about and have an interest in. In fact, the regulations are developed so as to try to prevent the substitution of regular Government workers, but it is very difficult to ascertain in an overall statistical program.

It is easier to do that through administrative statistics of people who are on the CETA rolls; that is, if they are on the payrolls of local prime sponsors, they can be identified and their employment experience can be tracked through the administrative records.

It is very difficult to do that through an overall survey program.

Senator MCCLURE. I understand that difficulty.

Again, what we need most in this area is objective information. We sometimes have reason to believe the program administrators are more interested in protecting us from learning the truth than they are interested in providing the truth to us, especially on some of the failures of the programs which they administer.

One of the concerns that I have had and others had, too, is that the CETA program has been almost totally public jobs-oriented.

There has been very little done, even though an amendment was adopted, to allow private sector involvement of the CETA job seeking and training.

I realize from your answers and those of other witnesses that this is outside of the area in which you track directly and yet if there is some way that you could provide us with some objective information, then certainly the success rate, the failure rate, the job substitution rates, would be very helpful to us and certainly a most invaluable tool for us in trying to make certain that the nearly $11 billion that we

spend in that area is spent more effectively and deals with the problems that it is designed to deal with.

If you come up with any ideas or find some way to assist us, I think we would all be grateful.

Thank you very much.

Representative MITCHELL [presiding]. Senator Bentsen had to leave and he asked me to assume the chairmanship.

I am really very, very interested in the contrast and comparisons between the committee and the labor survey.

Would it be possible for you to send to the members of the committee a sort of breakdown as to the major differences between these two approaches?

For example, when we deal with the discouraged workers, and I use that language "when we deal with"—what is the length of time that the person is working under that system before he is discouraged as opposed to the length of time under our system?

I think it would be beneficial to me and the members of the committee to get the major selling difference between the two.

Ms. NORWOOD. I certainly would be very happy to do that.

We can provide that fairly rapidly to the committee, Congressman.

Representative MITCHELL. All right.

[The information referred to follows:]

THE MEASUREMENT OF JOB-MARKET DISCOURAGEMENT: U.S. AND CANADIAN APPROACHES

About 60 million persons, or 40 percent of the U.S. working-age population, are outside the labor force—they are neither working nor looking for work. Nonparticipants are a heterogeneous group, comprised of such diverse persons as the long-term ill or disabled, retired persons, persons with home or family responsibilities, students, and persons classified as discouraged workers.

There is continuing interest in both the number and characteristics of discouraged workers, because, although they are not working or searching for work, many have some degree of labor force attachment and are considered by some to be potential workers. The number of discouraged workers averaged about 850,000 in 1978.

In the U.S. Current Population Survey (CPS), data on discouraged workers are based on responses to the questions, "Does * * * want a regular job now, either full- or part-time?" and, for those who respond "yes" or "maybe", "What are the reasons * * * is not looking for work?" Discouraged workers are those who indicate that they are not looking for work because, though wanting a job, they believe that they cannot obtain one. (Persons stating school, family, or health reasons for not searching for work are excluded from the discouraged worker count.) Information is available for the discouraged according to whether they looked but couldn't find a job or thought no job was available, which are termed job-market factors, versus those indicating such personal factors as employers thought that they were too old or young, their lack of education or training, or other personal reasons for not looking for work.

The U.S. concept and measurement of discouragement has been criticized by some as being too broad and by others as being too narrow. Most critics, however, agree that the concept is based on criteria which are too subjective and that some method should be developed to determine the labor force attachment of discouraged workers on a more objective basis. One method which has been widely suggested is to determine the extent of prior job search activity of nonparticipants during a specified past period.

The approach used in the Canadian Labour Force Survey (LFS) is based on prior job search activity. The LFS classification is made in three steps. First, persons who did not work during the survey week are asked if they had searched for work in the past 6 months. If the answer is "yes", they are asked what they have done in the past 4 weeks to find work. Those who indicate a specific search method and who also are available for work are counted as unemployed (as they

would be in the CPS). Those who looked for work in the past 6 months but not in the past 4 weeks and who indicate that they are currently available for work are identified as "marginally attached" to the work force. The Canadians do not explicitly identify discouraged workers, but the marginally attached are asked their reason for not searching. Responses relating to labor market conditions, roughly analogous to the CPS discouragement reasons, are identified under this procedure.

A special supplement to the CPS, conducted in September and October 1978, obtained specific information about the prior search experience of discouraged workers and other persons not in the labor force. Results from the survey found that many discouraged workers, indeed, had marginal labor force attachment (40 percent had looked for work in the prior-month period) but that the majority had not had a recent prior period of fruitless search.

The Bureau is planning to test at least one alternative method of identifying discouraged workers through the Census Bureau's Methods Test Panel later this year. Presumably, an objective test of labor market attachment would be part of this experiment.

Ms. NORWOOD. There are some differences between the Canadian survey and ours. The Canadian survey was designed a few years ago and you should know that its redesign was patterned fairly closely to the U.S. labor force.

There are some differences and we would be glad to point those out.

Representative MITCHELL. Thank you.

I have one last question.

The Levitan group has at least discussed what we should do about the people in the military service?

Should they or should they not be counted in the labor market?

Second, I suppose now that we have an All Volunteer Army that question certainly presents a greater significance.

Would you give your general reactions to whether we should include armed services in our statistics and what kind of impact would this make on both the national and local?

Ms. NORWOOD. I think the issue is one that certainly should be considered. I don't have any particular judgment on it at this point.

Let me just say that at the national level I think that the inclusion of the military would have a very small effect, perhaps one-tenth of 1 percent, on the unemployment rate.

At a local level, however, it would have an enormous effect because it would mean that in areas where there were military bases you would have a very large increase in the labor force.

Representative MITCHELL. Yes.

Ms. NORWOOD. The National Commission on Employment and Unemployment Statistics, for that reason, at least so far, has taken the position that the Armed Forces should not be included in the definition of local area unemployment statistics but they are considering including the Armed Forces in the national definition. That, of course, brings up some questions about whether the national definition and the local definition should in fact be different, but that is the current status of their discussions.

Representative MITCHELL. Thank you.

Senator, do you have more questions?

Senator MCCLURE. One other question.

I don't know whether we can separate it out in your statistics or not, but what is the percentage of those in the labor force either employed or seeking employment who have other sources of income.

I speak primarily of the growing phenomena of people with pensions from earlier jobs, retirement from earlier jobs or disability from earlier jobs who are now either working or seeking work.

Ms. NORWOOD. We do have, Mr. Stein tells me, in the March survey—perhaps you might want to answer the question, Mr. Stein.

Mr. STEIN. Once a year, Senator, we do collect information on income sources for the previous calendar year and we can determine, for those in the labor force as of March, their previous situation with respect to income.

Senator MCCLURE. Does that separate out the categories of income?

Mr. STEIN. Yes, it does. It goes into a fair amount of detail on sources of income.

Senator MCCLURE. That is a problem which I think we need to address as well, because certainly the phenomenon is growing.

We all know, for instance, that among law enforcement agencies paid by the Federal Government the disability retirement rate is very, very high.

It has become a way of life rather than a medical measurement and that has impact on both the cost of the program and the statistics of the labor force.

The same thing is true of growing numbers of retired military who have been qualified for retirement under the social security system or Federal employment, go to a third system to get a third source of retirement.

These people, as they retire, don't move out of the labor force; they just change from one job to another, and I think we need some measurement of that in order to deal with the situation, whether it is thought of as a problem or not.

I will appreciate whatever information you can give me on that.

Mr. STEIN. We will develop some tabulations and provide that for you.

Senator MCCLURE. Thank you.

Representative MITCHELL. Other members of the committee may have questions that could not be here. We may submit those to you in the very near future for response.

I want to thank you, Ms. Norwood, and your colleagues.

I reluctantly bring this hearing to a close because it means losing the power I just achieved.

However, I will now close the hearing with a note of thanks for your cooperation in answering the questions.

The hearing now stands adjourned.

[Whereupon, at 11:20 a.m., the committee adjourned, subject to the call of the Chair.]

EMPLOYMENT-UNEMPLOYMENT

FRIDAY, MARCH 9, 1979

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to notice, at 10:04 a.m., in room 1202, Dirksen Senate Office Building, Hon. Lloyd Bentsen (chairman of the committee) presiding.

Present: Senators Bentsen and Proxmire.

Also present: John M. Albertine, executive director; Louis C. Krauthoff II, assistant director-director, SSEC; M. Catherine Miller, professional staff member; Katie MacArthur, press assistant; Mark Borchelt, administrative assistant; and Charles H. Bradford, minority counsel.

OPENING STATEMENT OF SENATOR BENTSEN, CHAIRMAN

Senator BENTSEN. This hearing will come to order.

At the first of this month we got the first solid signal that a recession—one that all the economists have been predicting—was imminent, when we learned that the leading economic indicators fell 1.2 percent in January. Now we've been waiting for the other shoe to drop. But looking at today's unemployment figures, Commissioner Norwood, it appears that we're going to be waiting for awhile yet.

Unemployment in February was down again, from 5.8 to 5.7 percent. Employment increased by 345,000 people, That's really astounding; 1978 was a spectacular year so far as the number of jobs created, an average of some 260,000 a month. The first 2 months of this year, the average has shot up to just under 400,000 jobs created per month. No other country in the world has duplicated that kind of job creation.

Like "Ole Man River" our economy just keeps rolling along. But I wonder if this continued economic expansion at its present rate is all good news, because you should remember that "Ole Man River" occasionally rose and flooded right over its banks.

We learned yesterday that the Producer Price Index rose by 1 percent in February, an annual rate of 12 percent. I note that the interest rates on the money certificates that have propped up housing so far in this expansion have been cut by four Federal agencies. And when you cut that rate on the savings certificates, it obviously means we are concerned that the economy is overheating. That has to mean that housing starts have to drop some more.

Clearly, inflation remains our most serious and pressing problem. Our efforts to curb the cost of living have not taken hold yet and that

fight must remain the key element in this country's economic policy.

Commissioner Norwood, we are always glad to welcome you before the Joint Economic Committee and we are certainly interested in hearing your statement on the unemployment situation.

Senator Proxmire, do you have any remarks that you would like to make?

Senator PROXMIRE. Just before you begin, Commissioner, I would just like to join the chairman in his remarks. I think that the figures are astonishing this morning. If anyone had to predict that—well, as I was coming in this morning, I was thinking what the unemployment figures might be, and I expected they would be either the same or up, but I see the unemployment rate is down and down to 5.7 percent which is the lowest they have been in a long, long time. Of course, the big question is what is holding employment up; what is providing those additional jobs? I would hope the statistics can indicate something about that and give us a little insight into that. As the chairman has pointed out, all the elements would seem to be going the other way, the advance indicators, the high level of interest rates tending to retard construction, and business borrowing, the inflation itself which is a discouraging and unsettling element for business. Yet, as the chairman has said so well, the economy keeps rolling along. So we would like to get some explanation of this economy.

Senator BENTSEN. Please proceed, Commissioner.

STATEMENT OF HON. JANET L. NORWOOD, ACTING COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY W. JOHN LAYNG, ASSISTANT COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND ROBERT L. STEIN, ASSISTANT COMMISSIONER, OFFICE OF CURRENT EMPLOYMENT ANALYSIS

Ms. NORWOOD. Thank you, sir.

I would like to first introduce Mr. Robert Stein, Assistant Commissioner, Office of Current Employment Analysis; and Mr. John Layng, Assistant Commissioner, Office of Prices and Living Conditions.

Mr. Chairman, and members of the committee, I am glad to have this opportunity to offer the Joint Economic Committee a few brief comments to supplement our Employment Situation press release, issued this morning at 9 a.m., and our Producer Price Index press release, issued yesterday morning.

Employment rose sharply in February, the labor force increased, and unemployment was unchanged. Total employment according to the household survey rose by 345,000 over the month, and the employment-population ratio moved up to a new high of 59.4 percent. The unemployment rate was 5.7 percent in February; the overall rate has remained slightly below the 6-percent mark since last August.

The number of employees on nonfarm payrolls, as measured by the establishment survey, also continued upward, rising by 300,000 between January and February. Most of the increase in payroll jobs was in retail trade and other service-producing industries. Further job gains were also reported in durable goods manufacturing industries. On the other hand, nondurable goods showed no significant change in

February. The construction industry, which had been expanding throughout most of 1978, has trimmed its work force over the past 2 months.

Average weekly hours of production or nonsupervisory workers in the private nonfarm economy were unchanged over the months. The workweek edged down in February in the nondurable goods manufacturing sector, but was unchanged for durable goods industries where overtime hours continued as a relatively high level. The index of aggregate weekly hours was slightly above its December level, after a 1-month decline.

Unemployment has shown very little change for the past 6 months. For most worker groups, unemployment rates have fluctuated within a narrow range since the summer of 1978 and have shown no persistent trend during the past 6 to 8 months.

While the level of unemployment has held about steady for the last several months, it is important to note that the same people have not remained jobless over this period. Labor force movements are generally quite dynamic, and every month considerable turnover in the ranks of the unemployed occurs. For example, only half of the people unemployed in February had also been unemployed in January. The other half were about equally distributed between those who had just entered the labor force in search of jobs and those who had left or lost jobs held in January. More than one-fourth of those who were unemployed in January were employed in February and about one-fifth had left the labor force. Thus, the rapid labor force growth that has been taking place in our country is the net result of even more sizable flows of persons moving among the categories of employed, unemployed and not in the labor force.

Both total and nonfarm payroll employment have increased by 3.5 million from a year earlier. This is an extraordinarily large gain for a single year. The overall employment expansion has shown no signs of slowing down in recent months, although there are indications of some job cutbacks in the construction industry.

The unemployment rate has declined from 6.1 percent in February 1978 to 5.7 percent in February 1979. Most of the reduction in unemployment achieved during the current economic expansion had already taken place by February 1978.

SOME PERSPECTIVES ON TEENAGE UNEMPLOYMENT

Teenagers compromise one-tenth of the Nation's labor force but nearly one-quarter of the unemployed. Their high unemployment rates—16.1 percent in February 1979—result from many factors: lack of skills and experience, the difficulty students have in combining school and work, and the natural incidence of turnover among young people trying to find their proper place in the job market.

Unemployment rates generally decline as people grow older. The rate for 16- and 17-year-olds in February—18.4 percent—was close to five times the rate for persons 25 years old or older—3.9 percent. The persons 18 and 19 years of age, with lower jobless rates—14.6 percent—than younger teenagers, experienced nearly four times the unemployment rates of prime-age adults.

For some teenagers, unemployment is a temporary condition lasting only until successful entry into the job market. For other youth, however, unemployment is a very serious problem.

It should be noted that the overall teenage unemployment rate, high as it is, is dominated by the experience of white youth—13.6 percent in February. The rate for black youth—35.5 percent—is generally at least 2½times higher than the rate for whites.

It can be argued that teenage unemployment does not cause severe financial consequences, since most teenagers are in families with working parents. Although this tends to be true in the aggregate, the argument is based primarily on the white experience. Nearly three-quarters of all white teenagers live with both their parents, and when these teenagers are unemployed, nearly all—94 percent—can depend on the earnings of a working relative, usually a parent. Among blacks, however, nearly one-half of the unemployed teenagers live in a female-headed family and only 60 percent of these young people have a working relative. Moreover, the earnings of that employed relative tend to be low.

Teenagers who have graduated from high school have less than one-half the unemployment rate—11.5 percent for those not in college in October 1978—of high school dropouts—23.8 percent. For black teenagers, unemployment is high—30 percent or more—regardless of educational status. However, high school graduation does make a difference among young adults. The jobless rate for blacks 20–24 years of age who had graduated from high school was substantially lower than for high school dropouts—16 percent compared with 27 percent.

PRICES

The price data released by the Bureau of Labor Statistics so far this year are not encouraging. The January increases in both the Consumer Price Index and the Producer Price Index were substantial and broad based. The PPI for February released yesterday brought the change in the PPI for the first 2 months of this year to 2.4 percent. Especially in the areas of food, energy, and nonferrous metals, the evidence points to continued upward price pressures during the next few months.

The February increase in prices of finished goods was 1 percent on a seasonally adjusted basis. Finished food prices at the producer level increased 1.6 percent, only slightly less than January's 1.8 percent rise. The severe winter weather continued to influence prices of some food items, particularly beef, fruits, and vegetables. Prices of beef and veal increased 4.7 percent in February following January's rise of more than 13 percent. Fresh and dried fruits and vegetables were up 10 percent. But food price increases in February were not confined to beef, fruits, and vegetables. Prices of pork, fish, vegetable oil products, and refined sugar also rose. Crude foodstuffs and feed prices increased 3.8 percent in February as prices turned up for grains and cane sugar and continued to increase for cattle, hogs, soybeans, and milk.

Since August, crude food prices have increased by almost 30 percent at an annual rate. Increases in the prices of food at the producer level, of course, point toward continued upward pressures on retail food prices.

Prices of nonfood items also increased sharply in February. The increase of 0.9 percent in prices of nonfood finished goods was less than the 1.1 percent rise in January but comparies with increases of 0.8 percent in November and December 1978. Prices increased for a broad range of products: Leather footwear, tires and tubes, gasoline, automobiles, trucks, textile housefurnishings, and furniture.

The February data on producer prices also showed increases for nonfood semifinished goods and crude materials. The February increase in nonfood semifinished goods prices was the second increase in a row of about 1 percent. Increases were fairly widespread with major advances occurring in nonferrous metals, chemicals, and construction materials. At the crude processing stage, prices of nonfood items rose 2.8 percent. Much of the February rise was the result of substantial price increases for scrap metals, both ferrous and nonferrous. Prices also increased for hides and skins, natural gas, crude petroleum, and crude natural rubber.

In summary, Mr. Chairman, the Producer Price Index for February shows a continuing high rate of inflation—especially in the food and crude materials areas. Our other data show that business activity remains high, employment continues to expand, and more and more people are moving into the labor force.

My colleagues and I will now be very glad to answer any questions that you may have.

[The table attached to Ms. Norwood's statement, together with the Employment Situation press release referred to, follows:]

UNEMPLOYMENT RATES BY ALTERNATIVE SEASONAL ADJUSTED METHODS

Month and year	Unadjusted rate	Standard X-11 method					X-11 ARIMA method		Range (cols. 2-8)
		Official	Concurrent	Stable	Total	Residual	Extrapolated	Concurrent	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978:									
February	6.9	6.1	6.1	6.1	6.1	6.0	6.1	6.1	0.1
March	6.6	6.2	6.2	6.2	6.2	6.1	6.2	6.2	.1
April	5.8	6.1	6.1	6.0	6.0	6.1	6.1	6.1	.1
May	5.5	6.1	6.1	6.2	6.2	6.2	6.1	6.1	.1
June	6.2	5.9	5.9	5.8	5.9	5.8	5.8	5.8	.1
July	6.3	6.1	6.1	6.2	6.2	6.2	6.1	6.1	.1
August	5.8	5.9	5.9	5.9	5.9	6.0	5.9	5.9	.1
September	5.7	5.9	5.9	5.9	5.9	6.0	5.9	5.9	.1
October	5.4	5.8	5.8	5.8	5.8	5.9	5.8	5.8	.1
November	5.5	5.8	5.8	5.8	5.7	5.8	5.8	5.8	.1
December	5.6	5.9	5.9	6.0	5.8	6.0	5.9	5.9	.2
1979:									
January	6.4	5.8	5.8	5.8	5.7	5.5	5.8	5.8	.3
February	6.4	5.7	5.7	5.7	5.7	5.5	5.8	5.7	.3

Source: U.S. Department of Labor, Bureau of Labor Statistics, Mar. 9, 1979.

NOTES TO TABLE COLUMN NUMBERS

(1) *Unadjusted rate.*—Unemployment rate not seasonally adjusted.

(2) *Official rate (standard X–11 method).*—The published seasonally adjusted rate. Each of the 3 major labor force components—agricultural employment, nonagricultural employment and unemployment data—for 4 age-sex groups (males and females under and over 20 years of age) are separately adjusted then added to derive seasonally adjusted total figures. Teenage unemployment and nonagricultural employment are adjusted by the standard X–11 method's additive option, while all other series are adjusted by the multiplicative option. Adult male un-

employment is adjusted multiplicatively using the prior trend adjustment feature of the X–11. The rate is computed by adding the 12 components to a civilian labor force total, and dividing and derived civilian labor force into the unemployment total. These series are revised at the end of each year. Factors for the current year are computed at the beginning of the year for the 12 succeeding months, and published in advance.

The current "implicit" factors for the overall unemployment rate, derived by dividing the original unemployment rate by the seasonally adjusted rate for the months of 1978, are:

January	111.1	July	102.1
February	112.0	August	98.5
March	106.7	September	97.3
April	94.6	October	93.1
May	89.5	November	95.7
June	105.6	December	95.5

(3) *Concurrent (standard X–11 method).*—The procedure for computation of the official rate is followed, except that the data are re-seasonally adjusted by the standard X–11 method each month as the most recent data become available, i.e., the rate for January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are as revised to incorporate experience through December 1978.

(4) *Stable (standard X–11 method).*—The stable seasonal option of the standard X–11 method uses final seasonal factors computed as an unweighted average of all seasonal-irregular ratios for the entire span of the period, January 1967–December 1978. In essence, this procedure assumes that seasonal patterns are relatively constant from year-to-year. The unweighted average is updated and series revised at the end of each year.

(5) *Total (standard X–11 method).*—This is an alternative aggregation procedure, in which total unemployment and labor force levels are directly adjusted by the standard X–11 (multiplicative option) to derive the rate. The series are revised at the end of each year.

(6) *Residual (standard X–11 method).*—The labor force and employment levels are adjusted directly, with the level of unemployment derived as a residual. The rate is computed by dividing the residual unemployment level by the directly adjusted civilian labor force. The series are revised at the end of each year.

(7) *Extrapolated (X–11 ARIMA method).*—Data for the 12 component groups of the unemployment rate are estimated using ARIMA (autoregressive integrated moving average) models. The enlarged series is then seasonally adjusted with the X–11 program, and the rates are computed as in the official procedure. The series are revised at the end of each year. Factors for the current year are extrapolated at the beginning of the year for the 12 succeeding months.

(8) *Concurrent (X–11 ARIMA).*—The procedure for computation of the X–11 ARIMA rate is followed, except that the data are re-seasonally adjusted each month as the most recent data become available, i.e., the rate for January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are revised to reflect experience through December 1978.

Methods of Adjustment.—The standard X–11 method was developed by Julius Shiskin at the Bureau of the Census. The method is described in "X–11 Variant of the Census Method II Seasonal Adjustment Program", by Julius Shiskin, Alan Young, and John Musgrave, (Technical Paper No. 15, Bureau of the Census, 1967).

The X–11 ARIMA method was developed at Statistics Canada by Estela Bee Dagum and is the official method for seasonally adjusting the Canadian labor force series. A general description of the method is contained in "A Comparison and Assessment of Seasonal Adjustment Methods for Employment and Unemployment Statistics", by Estela Bee Dagum (Background Paper No. 5, U.S. National Commission on Employment and Unemployment Statistics, February 1978).

News United States Department of Labor
Bureau of Labor Statistics Washington, D.C. 20212

Contact: John Bregger (202) 523-1944
523-1371
Kathryn Hoyle (202) 523-1913
523-1208

USDL 79-181
TRANSMISSION OF MATERIAL IN THIS RELEASE IS EMBARGOED UNTIL 9:00 A.M. (EST), FRIDAY, MARCH 9, 1979

THE EMPLOYMENT SITUATION: FEBRUARY 1979

Employment rose in February and unemployment was unchanged, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The level of unemployment remained at 5.9 million and the overall rate of joblessness (5.7 percent) continued to hover just below the 6 percent mark.

Total employment--as measured by the monthly survey of households--grew by 345,000 in February to 96.6 million. Over the past year, the number of employed persons has increased by 3.6 million.

Nonfarm payroll employment--as measured by the monthly survey of establishments--rose by 300,000 over the month to 87.8 million. Since February 1978, nonagricultural payroll jobs have advanced by 3.5 million.

Unemployment

The unemployment picture continued unchanged in February. The number of persons unemployed remained at January's level of 5.9 million, while the unemployment rate, 5.7 percent, was not very different from those of the prior 6 months. Similarly, the rates for adult men (4.0 percent), adult women (5.7 percent), and teenagers (16.1 percent) showed no significant movements from January to February, nor have these rates shown any substantive changes since August 1978.

Since February a year ago, the overall jobless rate has declined by four-tenths of a percentage point, and the number of unemployed has fallen by a quarter of a million. Virtually all of the decline in unemployment took place among adult men, whose rate was down by half a point. The unemployment rate for whites also has dropped by half a point, principally reflecting developments among white adult men, while the rate for blacks has shown no improvement. Hispanic workers experienced an over-the-year reduction in joblessness. (See tables A-1, A-2, and A-8.)

Total Employment and the Labor Force

Total employment expanded by about 345,000 in February, a larger-than-average monthly rise, and the employment-to-population ratio reached a record 59.4 percent. All of the increase occurred among adults, with both men and women contributing. White-collar workers--particularly professional and clerical workers--were the major gainers. Over the year, employment has increased by 3.6 million, and white-collar jobholders have accounted for almost 70 percent of the growth. (See tables A-1 and A-3.)

The civilian labor force also grew by about 345,000 over the month to 102.5 million. The labor force was 3.3 million, or 3.4 percent, larger than a year earlier. At 63.9 percent, the civilian labor force participation rate reached a new high and was more than a point above the February 1978 level.

Table A. Major indicators of labor market activity, seasonally adjusted

Selected categories	Quarterly averages					Monthly data		
	1977	1978				1978	1979	
	IV	I	II	III	IV	Dec.	Jan.	Feb.
HOUSEHOLD DATA	Thousands of persons							
Civilian labor force	98,538	99,263	100,127	100,753	101,524	101,867	102,183	102,527
Total employment	92,046	93,084	94,099	94,726	95,616	95,855	96,300	96,647
Unemployment	6,492	6,179	6,028	6,027	5,908	6,012	5,883	5,881
Not in labor force	58,861	58,741	58,478	58,482	58,398	58,275	58,170	58,012
Discouraged workers	970	941	851	853	760	N.A.	N.A.	N.A.
	Percent of labor force							
Unemployment rates:								
All workers	6.6	6.2	6.0	6.0	5.8	5.9	5.8	5.7
Adult men	4.7	4.5	4.2	4.1	4.0	4.1	4.0	4.0
Adult women	6.7	6.0	6.1	6.1	5.8	5.8	5.7	5.7
Teenagers	16.6	16.9	16.1	16.1	16.3	16.5	15.7	16.1
White	5.7	5.4	5.2	5.2	5.1	5.2	5.1	4.9
Black and other	13.2	12.4	12.1	11.7	11.5	11.5	11.2	11.9
Full-time workers	6.1	5.7	5.5	5.5	5.2	5.3	5.2	5.2
ESTABLISHMENT DATA	Thousands of jobs							
Nonfarm payroll employment	83,489	84,262	85,677	86,115	86,963	87,281	87,465p	87,766p
Goods-producing industries	24,583	24,766	25,376	25,478	25,857	26,030	26,099p	26,149p
Service-producing industries	58,906	59,495	60,302	60,637	61,106	61,251	61,366p	61,617p
	Hours of work							
Average weekly hours:								
Total private nonfarm	36.0	35.7	36.0	35.8	35.9	35.9	35.7p	35.7p
Manufacturing	40.5	40.2	40.6	40.4	40.6	40.7	40.7p	40.6p
Manufacturing overtime	3.6	3.6	3.6	3.5	3.7	3.8	3.8p	3.8p

p=preliminary. N.A.=not available.

Industry Payroll Employment

Nonfarm payroll employment increased by 300,000 to 87.8 million in February, as employment grew in two-thirds of the 172 industries that comprise the BLS diffusion index of private nonagricultural employment. The number of nonfarm jobs was 3.5 million higher than a year earlier. (See tables B-1 and B-6.)

For the second consecutive month, job gains were strongest in retail trade (115,000). The 2-month expansion of 200,000 contributed heavily to an over-the-year employment growth of 640,000 in this industry.

Sizeable over-the-month growth also occurred in durable goods manufacturing (80,000)--led by transportation equipment, machinery, and electrical equipment--and services (65,000). Smaller over-the-month gains took place in transportation and public utilities (35,000) and finance, insurance, and real estate (15,000).

Construction employment was down by 30,000 in February, following a somewhat smaller decline in January; however, employment in this cyclically sensitive industry was still 400,000 above the year-earlier level. Employment in mining continued the steady upward movement that has been evident since the 1973 energy crisis.

Hours

The average workweek of production or nonsupervisory workers on private nonagricultural payrolls was 35.7 hours in February, unchanged from the January level. The manufacturing workweek, at 40.6 hours, edged down 0.1 hour over the month. Factory overtime, at 3.8 hours, was unchanged from January's level. (See table B-2.)

Reflecting the February employment increase, the index of aggregate weekly hours of production or nonsupervisory workers on private nonagricultural payrolls rose 0.5 percent to 123.0 (1967=100). The index was 5.0 percent above its year-ago level. (See table B-5.)

Hourly and Weekly Earnings

Average hourly and weekly earnings of production or nonsupervisory workers on private nonagricultural payrolls both rose 0.5 percent from January and were 8.7 percent higher than February 1978 (seasonally adjusted). Before adjustment for seasonality, average hourly earnings rose 2 cents to $5.97, 48 cents above February 1978. Average weekly earnings were $211.34, $1.90 above January and $17.54 above a year earlier. (See table B-3.)

The Hourly Earnings Index

The Hourly Earnings Index--earnings adjusted for overtime in manufacturing, seasonality, and the effects of changes in the proportion of workers in high-wage and low-wage industries--was 223.1 (1967=100) in February, 0.4 percent higher than in January. The index was 8.0 percent above February a year ago. During the 12-month period ended in January, the Hourly Earnings Index in dollars of constant purchasing power declined 1.3 percent. (See table B-4. Constant dollar data reflect revisions in the seasonally adjusted Consumer Price Index for Urban Wage Earners and Clerical Workers--CPI-W.)

Explanatory Note

This release presents and analyzes statistics from two major surveys. Data on labor force, total employment, and unemployment (A tables) are derived from the Current Population Survey—a sample survey of households which is conducted by the Bureau of the Census for the Bureau of Labor Statistics. Beginning in September 1975, the sample was enlarged by 9,000 households in order to provide greater reliability for smaller States and thus permit the publication of annual statistics for all 50 States and the District of Columbia. These supplementary households were added to the 47,000 national household sample in January 1978; thus the sample now consists of about 56,000 households selected to represent the U.S. civilian noninstitutional population 16 years and over.

Statistics on nonagricultural payroll employment, hours, and earnings (B tables) are collected by the Bureau of Labor Statistics, in cooperation with State agencies, from payroll records of a sample of approximately 165,000 establishments. Unless otherwise indicated, data for both statistical series relate to the week containing the 12th day of the specified month.

Comparability of household and payroll employment statistics

Employment data from the household and payroll surveys differ in several basic respects. The household survey provides information on the labor force activity of the entire civilian noninstitutional population, 16 years of age and over, without duplication. Each person is classified as either employed, unemployed, or not in the labor force. The household survey counts employed persons in both agriculture and nonagricultural industries and, in addition to wage and salary workers (including private household workers), counts the self-employed, unpaid family workers, and persons "with a job but not at work" and not paid for the period absent.

The payroll survey relates only to paid wage and salary employees (regardless of age) on the payrolls of nonagricultural establishments. Persons who worked at more than one job during the survey week or otherwise appear on more than one payroll are counted more than once in the establishment survey. Such persons are counted only once in the household survey and are classified in the job at which they worked the greatest number of hours.

Unemployment

To be classified in the household survey as unemployed an individual must: (1) Have been without a job during the survey week; (2) have made specific efforts to find employment sometime during the prior 4 weeks; and (3) be presently available for work. In addition, persons on layoff and those waiting to begin a new job (within 30 days), neither of whom must meet the jobseeking requirements, are also classified as unemployed. The unemployed total includes all persons who satisfactorily meet the above criteria, regardless of their eligibility for unemployment insurance benefits or any kind of public assistance. The unemployment rate represents the unemployed as a proportion of the civilian labor force (the employed and unemployed combined).

The Bureau regularly publishes a wide variety of labor market measures. See, for example, the demographic, occupational, and industry detail in tables A-2 and A-3 of this release and the comprehensive data package in Employment and Earnings each month. A special grouping of seven unemployment measures is set forth in table A-7. Identified by the symbols U-1 through U-7, these measures represent a range of possible definitions of unemployment and of the labor force—from the most restrictive (U-1) to the most comprehensive (U-7). The official rate of unemployment appears as U-5.

Seasonal adjustment

Nearly all economic phenomena are affected to some degree by seasonal variations. These are recurring, predictable events which are repeated more or less regularly each year—changes in weather, opening and closing of schools, major holidays, industry production schedules, etc. The cumulative effects of these events are often large. For example, on average over the year, they explain about 95 percent of the month-to-month variance in the unemployment figures. Since seasonal variations tend to be large relative to the underlying cyclical trends, it is necessary to use seasonally-adjusted data to interpret short-term economic developments. At the beginning of each year, seasonal adjustment factors for unemployment and other labor force series are calculated for use during the entire year, taking into account the prior year's experience.

All seasonally-adjusted civilian labor force and unemployment rate statistics, as well as the major employment and unemployment estimates, are computed by aggregating independently adjusted series. The official unemployment rate for all civilian workers is derived by dividing the estimate for total unem-

ployment (the sum of four seasonally-adjusted age-sex components) by the civilian labor force (the sum of 12 seasonally-adjusted age-sex components).

For establishment data, the seasonally-adjusted series for all employees, production workers, average weekly hours, and average hourly earnings are adjusted by aggregating the seasonally-adjusted data from the respective component series. These data are also revised annually, often in conjunction with benchmark (comprehensive counts of employment) adjustments. (The most recent revision of seasonally-adjusted data was based on data through May 1978.)

Sampling variability

Both the household and establishment survey statistics are subject to sampling error, which should be taken into account in evaluating the levels of a series as well as changes over time. Because the household survey is based upon a probability sample, the results may differ from the figures that would be obtained if it were possible to take a complete census using the same questionnaires and procedures. The standard error is the measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the entire population is surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from a figure that would be obtained through a complete census by less than the standard error. Tables A through H in the "Explanatory Notes" of Employment and Earnings provide approximations of the standard errors for unemployment and other labor force categories. To obtain a 90-percent level of confidence, the confidence interval generally used by BLS, the errors should be multiplied by 1.6. The following examples provide an indication of the magnitude of sampling error: For a monthly change in total employment, the standard error is on the order of plus or minus 182,000. Similarly, the standard error on a change in total unemployment is approximately 115,000. The standard error on a change in the national unemployment rate is 0.12 percentage point.

Although the relatively large size of the monthly establishment survey assures a high degree of accuracy, the estimates derived from it also may differ from the figures obtained if a complete census using the same schedules and procedures were possible. However, since the estimating procedures utilize the previous month's level as the base in computing the current month's level of employment (link-relative technique), sampling and response errors may accumulate over several months. To remove this accumulated error, the employment estimates are adjusted to new benchmarks (comprehensive counts of employment), usually on an annual basis. In addition to taking account of sampling and response errors, the benchmark revision adjusts the estimates for changes in the industrial classification of individual establishments. Employment estimates are currently projected from March 1977 levels.

One measure of the reliability of the employment estimates for individual industries is the root-mean-square error (RMSE). The RMSE is the standard deviation adjusted for the bias in estimates. If the bias is small, the chances are about 68 out of 100 that an estimate from the sample would differ from its benchmark by less than the RMSE. For total nonagricultural employment, the RMSE is on the order of plus or minus 81,000. Measures of reliability (approximations of the RMSE) for establishment-survey data and actual amounts of revision due to benchmark adjustments are provided in tables J through O in the "Explanatory Notes" of Employment and Earnings.

Table A-1. Employment status of the noninstitutional population

[Numbers in thousands]

Employment status	Not seasonally adjusted			Seasonally adjusted					
	Feb. 1978	Jan. 1979	Feb. 1979	Feb. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979
TOTAL									
Total noninstitutional population[1]	163,128	162,488	162,633	163,128	161,629	162,033	162,250	162,488	162,633
Armed Forces[2]	2,124	2,094	2,094	2,124	2,122	2,117	2,108	2,094	2,094
Civilian noninstitutional population[1]	158,004	160,353	160,539	158,004	159,507	159,916	160,142	160,353	160,539
Civilian labor force	97,924	100,867	101,249	99,133	101,077	101,628	101,867	102,183	102,527
Participation rate	62.0	62.9	63.1	62.7	63.3	63.6	63.6	63.7	63.9
Employed	91,185	94,436	94,765	93,087	95,241	95,751	95,855	96,399	96,647
Employment-population ratio[3]	56.9	58.1	58.3	58.1	58.9	59.1	59.1	59.2	59.4
Agriculture	2,771	2,762	2,796	3,280	3,274	3,275	3,387	3,232	3,311
Nonagricultural industries	88,413	91,673	91,969	89,767	91,867	92,476	92,466	93,168	93,335
Unemployed	6,739	6,431	6,484	6,046	5,836	5,877	6,012	5,783	5,881
Unemployment rate	6.9	6.4	6.4	6.1	5.8	5.8	5.9	5.7	5.7
Not in labor force	60,080	59,487	59,290	58,865	58,430	58,288	58,275	58,170	58,012
Men, 20 years and over									
Total noninstitutional population[1]	68,240	69,385	69,476	68,240	69,081	69,182	69,288	69,385	69,476
Civilian noninstitutional population[1]	66,556	67,726	67,816	66,556	67,382	67,486	67,600	67,722	67,816
Civilian labor force	52,713	53,833	53,961	53,161	53,593	53,938	54,033	54,333	54,485
Participation rate	79.2	79.5	79.6	79.9	79.5	79.9	79.9	80.2	80.3
Employed	49,805	51,227	51,324	50,785	51,448	51,825	51,838	52,133	52,331
Employment-population ratio[3]	73.0	73.8	73.9	74.4	74.5	74.9	74.8	75.1	75.3
Agriculture	2,135	2,084	2,117	2,330	2,363	2,337	2,403	2,293	2,329
Nonagricultural industries	47,700	49,143	49,207	48,475	49,085	49,488	49,435	49,841	50,002
Unemployed	2,907	2,607	2,637	2,376	2,145	2,113	2,195	2,200	2,154
Unemployment rate	5.5	4.8	4.9	4.5	4.0	3.9	4.1	4.0	4.0
Not in labor force	13,843	13,892	13,855	13,395	13,789	13,548	13,567	13,389	13,331
Women, 20 years and over									
Total noninstitutional population[1]	75,095	76,337	76,440	75,095	75,998	76,130	76,227	76,337	76,440
Civilian noninstitutional population[1]	74,996	76,228	76,332	74,996	75,889	76,001	76,119	76,228	76,332
Civilian labor force	36,733	38,158	38,525	36,652	37,860	38,095	38,217	38,185	38,429
Participation rate	49.0	50.1	50.5	48.9	49.9	50.1	50.2	50.1	50.3
Employed	34,470	35,869	36,193	34,540	35,726	35,887	35,990	36,019	36,252
Employment-population ratio[3]	45.9	47.0	47.3	46.0	47.0	47.2	47.2	47.2	47.4
Agriculture	437	451	482	601	587	571	591	586	608
Nonagricultural industries	34,033	35,398	35,751	33,939	35,139	35,316	35,399	35,433	35,644
Unemployed	2,262	2,309	2,332	2,112	2,134	2,208	2,227	2,166	2,177
Unemployment rate	6.2	6.1	6.1	5.8	5.6	5.8	5.8	5.7	5.7
Not in labor force	38,263	38,070	37,807	38,344	38,029	37,906	37,902	38,043	37,903
Both sexes, 16-19 years									
Total noninstitutional population[1]	16,794	16,725	16,717	16,794	16,750	16,741	16,734	16,725	16,717
Civilian noninstitutional population[1]	16,453	16,400	16,391	16,453	16,436	16,429	16,422	16,400	16,391
Civilian labor force	8,479	8,875	8,763	9,320	9,624	9,595	9,617	9,665	9,613
Participation rate	51.5	54.1	53.5	56.7	58.6	58.4	58.6	58.5	58.6
Employed	6,909	7,360	7,246	7,722	8,067	8,039	8,027	8,148	8,068
Employment-population ratio[3]	41.1	44.0	43.4	46.0	48.2	48.0	48.0	48.7	48.2
Agriculture	229	228	238	369	424	367	393	354	380
Nonagricultural industries	6,680	7,132	7,011	7,353	7,643	7,672	7,634	7,794	7,684
Unemployed	1,570	1,515	1,515	1,604	1,557	1,556	1,590	1,517	1,549
Unemployment rate	18.5	17.1	17.3	17.2	16.2	16.2	16.5	15.7	16.1
Not in labor force	7,974	7,525	7,628	7,127	6,812	6,834	6,805	6,735	6,778
White									
Total noninstitutional population[1]	140,571	142,351	142,493	140,571	141,874	142,031	142,198	142,351	142,493
Civilian noninstitutional population[1]	138,834	140,663	140,825	138,834	140,170	140,332	140,507	140,683	140,825
Civilian labor force	86,344	88,988	89,215	87,423	89,067	89,468	89,747	90,093	90,395
Participation rate	62.2	63.3	63.4	63.0	63.5	63.8	63.9	64.0	64.2
Employed	81,061	83,950	84,237	82,718	84,560	85,013	85,125	85,543	85,941
Employment-population ratio[3]	57.7	59.0	59.1	58.8	59.6	59.9	59.9	60.1	60.3
Unemployed	5,284	5,038	4,978	4,735	4,502	4,455	4,622	4,550	4,453
Unemployment rate	6.1	5.7	5.6	5.4	5.1	5.0	5.2	5.1	4.9
Not in labor force	52,490	51,695	51,610	51,411	51,103	50,864	50,760	50,590	50,430
Black and other									
Total noninstitutional population[1]	19,558	20,097	20,140	19,558	19,755	20,002	20,051	20,097	20,140
Civilian noninstitutional population[1]	19,170	19,670	19,714	19,170	19,536	19,585	19,635	19,670	19,714
Civilian labor force	11,580	11,879	12,033	11,773	12,122	12,163	12,153	12,077	12,228
Participation rate	60.4	60.4	61.0	61.4	62.0	62.1	61.9	61.4	62.0
Employed	10,124	10,486	10,527	10,369	10,749	10,746	10,798	10,725	10,775
Employment-population ratio[3]	51.8	52.2	52.3	53.0	53.9	53.7	53.7	53.4	53.5
Unemployed	1,455	1,393	1,506	1,404	1,373	1,417	1,395	1,352	1,452
Unemployment rate	12.6	11.7	12.5	11.9	11.3	11.7	11.5	11.2	11.9
Not in labor force	7,591	7,792	7,680	7,397	7,414	7,422	7,482	7,593	7,486

[1] The population and Armed Forces figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

[2] Civilian employment as a percent of the total noninstitutional population (including Armed Forces).

HOUSEHOLD DATA

Table A-2. Major unemployment indicators, seasonally adjusted

Selected categories	Number of unemployed persons (In thousands)		Unemployment rate					
	Feb. 1978	Feb. 1979	Feb. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979
CHARACTERISTICS								
Total, 16 years and over	6,092	5,881	6.1	5.8	5.8	5.9	5.8	5.7
Men, 20 years and over	2,376	2,154	4.5	4.0	3.9	4.1	4.0	4.0
Women, 20 years and over	2,112	2,177	5.8	5.6	5.8	5.8	5.7	5.7
Both sexes, 16-19 years	1,604	1,549	17.2	16.2	16.2	16.5	15.7	16.1
White, total	4,705	4,453	5.4	5.1	5.0	5.2	5.1	4.9
Men, 20 years and over	1,852	1,633	3.9	3.5	3.4	3.5	3.6	3.4
Women, 20 years and over	1,640	1,658	5.2	4.9	5.0	5.1	5.0	5.0
Both sexes, 16-19 years	1,213	1,163	14.6	14.0	13.8	14.2	13.7	13.6
Black and other, total	1,404	1,452	11.9	11.3	11.7	11.5	11.2	11.9
Men, 20 years and over	498	502	8.8	8.3	8.3	8.4	7.8	8.6
Women, 20 years and over	509	557	10.0	10.1	10.3	10.2	10.6	10.6
Both sexes, 16-19 years	397	393	38.1	34.5	36.5	38.9	32.7	35.5
Married men, spouse present	1,163	1,071	2.9	2.6	2.4	2.5	2.6	2.6
Married women, spouse present	1,223	1,222	5.4	5.3	5.5	5.6	5.3	5.1
Women who head families	361	411	7.7	7.5	7.7	7.7	7.8	8.3
Full-time workers	4,836	4,584	5.7	5.2	5.2	5.3	5.2	5.2
Part-time workers	1,260	1,306	8.6	9.0	8.9	9.2	9.1	8.6
Unemployed 15 weeks and over[1]	1,559	1,260	1.6	1.3	1.2	1.2	1.2	1.2
Labor force time lost[2]	--	--	6.6	6.2	6.2	6.2	6.2	6.2
OCCUPATION[3]								
White-collar workers	1,715	1,703	3.6	3.3	3.2	3.5	3.3	3.4
Professional and technical	364	360	2.5	2.8	2.4	3.0	2.5	2.3
Managers and administrators, except farm	198	201	1.9	1.8	2.2	1.9	2.0	1.9
Sales workers	267	277	4.4	4.1	3.1	3.6	3.8	4.3
Clerical workers	886	866	5.1	4.2	4.5	4.6	4.6	4.7
Blue-collar workers	2,399	2,227	7.2	6.8	6.8	6.8	6.8	6.8
Craft and kindred workers	642	635	5.0	4.9	4.8	4.7	4.5	4.7
Operatives, except transport	972	906	8.3	7.6	7.5	7.7	7.6	7.6
Transport equipment operatives	194	189	5.1	4.6	4.2	5.3	4.9	5.0
Nonfarm laborers	591	497	11.3	11.0	11.6	11.0	11.4	9.3
Service workers	981	974	7.2	7.1	7.4	7.7	7.9	7.1
Farm workers	120	104	4.1	4.6	3.2	3.4	2.8	3.6
INDUSTRY[3]								
Nonagricultural private wage and salary workers[4]	4,813	4,199	6.1	5.6	5.6	5.8	5.7	5.6
Construction	529	588	11.2	11.2	10.8	12.1	10.6	11.5
Manufacturing	1,267	1,086	5.8	5.1	5.1	5.0	5.0	4.8
Durable goods	662	567	5.1	4.6	4.6	4.4	4.4	4.1
Nondurable goods	605	519	6.7	6.0	5.8	6.0	5.9	5.8
Transportation and public utilities	172	160	3.3	3.4	3.3	3.3	3.5	3.0
Wholesale and retail trade	1,315	1,256	7.2	6.7	6.5	6.8	6.5	6.6
Finance and service industries	1,097	1,062	5.2	4.6	5.0	5.1	5.1	4.8
Government workers	558	584	3.5	3.9	3.9	4.0	4.0	3.7
Agricultural wage and salary workers	187	180	9.7	9.5	7.9	7.7	7.2	8.9

[1] Unemployment rate calculated as a percent of civilian labor force.

[2] Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

[3] Unemployment by occupation includes all experienced unemployed persons, whereas that by industry covers only unemployed wage and salary workers.

[4] Includes mining, not shown separately.

Table A-3. Selected employment indicators

[In thousands]

Selected categories	Not seasonally adjusted		Seasonally adjusted					
	Feb. 1978	Feb. 1979	Feb. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979
CHARACTERISTICS								
Total employed, 16 years and over	91,185	94,765	93,047	95,261	95,751	95,855	96,300	96,647
Men	53,466	55,032	54,983	55,754	56,096	56,072	56,449	56,549
Women	37,719	39,733	38,104	39,487	39,655	39,783	39,851	40,098
Married men, spouse present	38,047	38,748	38,677	38,806	38,944	39,038	39,202	39,371
Married women, spouse present	21,654	22,587	21,704	22,194	22,274	22,297	22,410	22,632
OCCUPATION								
White-collar workers	46,475	48,911	46,582	47,713	47,888	48,040	48,275	49,001
Professional and technical	14,254	15,284	14,062	14,307	14,297	14,629	14,783	15,034
Managers and administrators, except farm	9,962	10,258	10,116	9,968	10,030	10,217	10,322	10,414
Sales workers	5,666	5,963	5,836	5,986	6,192	6,092	6,055	6,141
Clerical workers	16,594	17,407	16,568	17,452	17,369	17,102	17,159	17,412
Blue-collar workers	29,796	30,927	31,140	31,986	32,202	31,962	32,491	32,331
Craft and kindred workers	11,780	12,505	12,181	12,556	12,646	12,610	12,842	12,932
Operatives, except transport	10,805	10,657	10,690	11,178	11,177	10,887	11,087	10,951
Transport equipment operatives	3,548	3,535	3,631	3,581	3,640	3,640	3,678	3,618
Nonfarm laborers	4,064	4,230	4,638	4,671	4,739	4,825	4,924	4,829
Service workers	12,557	12,603	12,723	12,951	13,008	13,007	12,777	12,770
Farm workers	2,356	2,324	2,784	2,821	2,739	2,826	2,759	2,742
MAJOR INDUSTRY AND CLASS OF WORKER								
Agriculture:								
Wage and salary workers	1,118	1,166	1,366	1,423	1,626	1,478	1,365	1,429
Self-employed workers	1,460	1,418	1,595	1,636	1,563	1,625	1,547	1,550
Unpaid family workers	196	212	322	323	293	318	293	348
Nonagricultural industries:								
Wage and salary workers	81,451	85,067	83,058	85,363	85,578	85,579	86,169	86,346
Government	15,526	15,568	15,253	15,347	15,373	15,360	15,217	15,293
Private industries	66,325	69,500	67,801	69,976	70,205	70,219	70,952	71,053
Private households	1,328	1,265	1,401	1,315	1,335	1,316	1,285	1,334
Other industries	64,997	68,235	66,400	68,661	68,870	68,903	69,707	69,719
Self-employed workers	6,123	6,486	6,260	6,314	6,370	6,515	6,529	6,632
Unpaid family workers	440	416	482	453	455	460	478	456
PERSONS AT WORK[1]								
Nonagricultural industries	84,176	87,692	84,096	86,511	86,653	87,046	87,490	87,592
Full-time schedules	68,592	71,600	69,211	71,318	71,396	71,787	72,209	72,250
Part time for economic reasons	3,111	3,068	3,203	3,164	3,131	3,058	3,159	3,147
Usually work full time	1,248	1,297	1,160	1,167	1,279	1,209	1,208	1,205
Usually work part time	1,863	1,771	2,043	1,997	1,852	1,849	1,951	1,942
Part time for noneconomic reasons	12,473	13,024	11,682	12,029	12,128	12,201	12,122	12,195

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

Table A-4. Duration of unemployment

[Numbers in thousands]

Weeks of unemployment	Not seasonally adjusted		Seasonally adjusted					
	Feb. 1978	Feb. 1979	Feb. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979
DURATION								
Less than 5 weeks	2,591	2,683	2,649	2,719	2,833	2,876	2,713	2,743
5 to 14 weeks	2,406	2,293	1,880	1,749	1,778	1,939	1,877	1,870
15 weeks and over	1,742	1,407	1,559	1,317	1,196	1,208	1,251	1,260
15 to 26 weeks	1,062	847	894	732	685	726	728	712
27 weeks and over	680	560	665	585	511	482	523	548
Average (mean) duration, in weeks	12.6	11.3	12.6	11.8	11.0	10.7	11.2	11.3
Median duration, in weeks	7.7	6.8	7.1	5.9	5.8	5.6	5.9	6.3
PERCENT DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	38.5	41.4	43.5	46.7	48.8	47.4	46.4	46.7
5 to 14 weeks	35.7	36.9	30.9	30.7	30.6	32.6	32.1	31.8
15 weeks and over	25.8	21.7	25.6	22.6	20.6	19.9	21.4	21.4
15 to 26 weeks	15.8	13.1	14.7	12.6	11.8	12.0	12.5	12.1
27 weeks and over	10.1	8.6	10.9	10.0	8.8	7.9	9.0	9.3

Table A-5. Reasons for unemployment

(Numbers in thousands)

Reasons	Not seasonally adjusted		Seasonally adjusted					
	Feb. 1978	Feb. 1979	Feb. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979
NUMBER OF UNEMPLOYED								
Lost last job	3,241	3,106	2,589	2,456	2,372	2,442	2,454	2,481
On layoff	1,047	1,154	719	644	746	715	753	792
Other job losers	2,194	1,952	1,870	1,812	1,626	1,727	1,701	1,689
Left h:t job	885	849	896	812	825	871	927	829
Reentered labor force	1,848	1,800	1,802	1,721	1,759	1,937	1,695	1,756
Seeking first job	765	759	880	825	872	826	823	874
PERCENT OF DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	48.0	47.9	42.0	42.2	40.7	40.2	41.6	41.8
On layoff	15.5	17.8	11.7	11.1	12.8	11.8	12.6	13.3
Other job losers	32.5	30.1	30.3	31.2	27.9	28.4	28.9	28.4
Job leavers	13.1	12.6	14.5	14.0	14.2	14.3	15.7	14.0
Reentrants	27.4	27.8	29.2	29.6	30.1	31.9	28.7	29.6
New entrants	11.4	11.7	14.3	14.2	15.0	13.6	14.0	14.7
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE								
Job losers	3.3	3.0	2.6	2.4	2.3	2.4	2.4	2.4
Job leavers	.9	.8	.9	.8	.8	.9	.9	.8
Reentrants	1.9	1.8	1.8	1.7	1.7	1.9	1.7	1.7
New entrants	.8	.8	.9	.8	.9	.8	.8	.9

Table A-6. Unemployment by sex and age, seasonally adjusted

Sex and age	Number of unemployed persons (in thousands)		Unemployment rates					
	Feb. 1978	Feb. 1979	Feb. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979
Total, 16 years and over	6,092	5,881	6.1	5.8	5.8	5.9	5.8	5.7
16 to 19 years	1,604	1,549	17.2	16.2	16.2	16.5	15.7	16.1
16 to 17 years	813	758	20.5	19.2	19.3	20.2	18.4	18.4
18 to 19 years	806	807	18.9	14.0	14.0	13.8	13.6	14.6
20 to 24 years	1,477	1,316	10.1	8.6	9.0	9.3	8.6	8.6
25 years and over	2,992	2,998	4.0	3.9	3.8	3.9	3.5	3.9
25 to 54 years	2,532	2,566	4.2	4.2	4.0	4.2	4.2	4.1
55 years and over	476	449	3.3	3.0	2.9	2.9	2.9	3.0
Men, 16 years and over	3,221	2,969	5.5	5.1	5.0	5.1	5.1	5.0
16 to 19 years	845	835	16.9	16.1	15.9	16.7	16.1	16.5
16 to 17 years	453	423	20.8	19.9	20.1	20.7	19.1	19.2
18 to 19 years	403	424	14.1	13.2	12.7	13.6	13.5	14.7
20 to 24 years	802	678	10.1	8.5	8.5	8.9	8.4	8.2
25 years and over	1,551	1,459	3.8	3.3	3.1	3.2	3.2	3.2
25 to 54 years	1,261	1,202	3.5	3.4	3.2	3.4	3.3	3.2
55 years and over	291	257	3.2	2.8	2.5	2.6	2.8	2.8
Women, 16 years and over	2,871	2,893	7.0	6.8	6.9	6.9	6.7	6.7
16 to 19 years	759	714	17.6	16.3	16.5	16.3	15.3	15.7
16 to 17 years	360	335	20.1	18.4	18.3	19.6	17.5	17.4
18 to 19 years	403	383	15.8	14.8	15.5	14.1	13.6	14.4
20 to 24 years	675	642	10.0	8.7	9.6	9.7	8.9	9.1
25 years and over	1,441	1,539	4.8	4.9	4.9	5.0	5.0	4.9
25 to 54 years	1,271	1,364	5.2	5.2	5.2	5.3	5.4	5.3
55 years and over	185	192	3.3	3.3	3.5	3.3	3.1	3.2

Table A-7. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

[Percent]

Measures	Quarterly averages					Monthly data		
	1977	1978				1978	1979	
	IV	I	II	III	IV	Dec.	Jan.	Feb.
U-1—Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.8	1.6	1.4	1.3	1.2	1.2	1.2	1.2
U-2—Job losers as a percent of the civilian labor force	2.9	2.6	2.5	2.4	2.4	2.4	2.4	2.4
U-3—Unemployed persons 25 years and over as a percent of the civilian labor force 25 years and over	4.6	4.1	4.1	4.1	3.9	3.9	3.9	3.9
U-4—Unemployed full-time jobseekers as a percent of the full-time labor force	6.1	5.7	5.5	5.5	5.2	5.3	5.2	5.2
U-5—Total unemployed as a percent of the civilian labor force (official measure)	6.6	6.2	6.0	6.0	5.8	5.9	5.8	5.7
U-6—Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons as a percent of the civilian labor force less ½ of the part-time labor force	8.1	7.7	7.6	7.5	7.2	7.2	7.2	7.2
U-7—Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons plus discouraged workers as a percent of the civilian labor force plus discouraged workers less ½ of the part-time labor force	9.1	8.6	8.4	8.4	8.0	N.A.	N.A.	N.A.

N.A. = not available.

Table A-8. Employment status of the noninstitutional population by race and Hispanic origin, not seasonally adjusted

[Number in thousands]

Employment status	Total		White		Black[1]		Hispanic origin[2]	
	Feb. 1978	Feb. 1979	Feb. 1978	Feb. 1979	Feb. 1978	Feb. 1979	Feb. 1978	Feb. 1979
TOTAL								
Civilian noninstitutional population	158,004	160,539	138,834	140,825	16,510	16,884	7,496	7,618
Civilian labor force	97,924	101,249	86,344	89,215	9,920	10,281	4,534	4,856
Percent of population	62.0	63.1	62.2	63.4	60.1	60.6	60.5	63.7
Employment	91,185	94,765	81,061	84,237	8,593	8,846	4,047	4,456
Agriculture	2,771	2,796	2,514	2,551	211	196	161	282
Nonagricultural industries	88,413	91,969	78,547	81,687	8,382	8,650	3,886	4,254
Unemployment	6,739	6,484	5,284	4,978	1,328	1,394	487	401
Unemployment rate	6.9	6.4	6.1	5.6	13.4	13.6	10.7	8.2
Not in labor force	60,080	59,290	52,490	51,610	6,590	6,643	2,962	2,762

[1] Data relate to black workers only. According to the 1970 Census, they comprised about 90 percent of the "black and other" population group.

[2] Data on persons of Hispanic origin are tabulated separately, without regard to race, which means that they are also included in the data for white and black workers. At the time of the 1970 Census, approximately 95 percent of their population was whites.

Table A-9. Employment status of male Vietnam-era veterans and nonveterans by age, not seasonally adjusted

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
			Total		Employed		Unemployed			
							Number		Percent of labor force	
	Feb. 1978	Feb. 1979	Feb. 1978	Feb. 1979	Feb. 1978	Feb. 1979	Feb. 1978	Feb. 1979	Feb. 1978	Feb. 1979
VETERANS[1]										
Total, 20 years and over	8,263	8,476	7,789	8,049	7,312	7,586	477	463	6.1	5.8
20 to 24 years	829	624	733	579	610	490	123	89	16.8	15.4
25 to 39 years	6,754	7,054	6,489	6,786	6,164	6,446	325	340	5.0	5.0
25 to 29 years	2,540	2,090	2,401	1,982	2,241	1,811	160	171	6.7	8.6
30 to 34 years	3,226	3,558	3,125	3,437	2,990	3,307	135	130	4.3	3.8
35 to 39 years	988	1,406	963	1,367	933	1,328	30	39	3.1	2.9
40 years and over	680	798	567	684	538	650	29	34	5.1	5.0
NONVETERANS[2]										
Total, 25 to 39 years	13,383	14,242	12,689	13,546	12,037	12,941	652	603	5.1	4.5
25 to 29 years	5,860	6,470	5,514	6,128	5,162	5,786	352	342	6.4	5.6
30 to 34 years	3,998	4,085	3,806	3,888	3,622	3,732	184	156	4.8	4.0
35 to 39 years	3,529	3,687	3,369	3,528	3,253	3,423	116	105	3.4	3.0

[1] Vietnam-era veterans are those who served between August 5, 1964 and May 7, 1975.

[2] Nonveterans are males who have never served in the Armed Forces. Published data are limited to those 25-39 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

NOTE: Seasonally-adjusted data are no longer being provided because the changing age composition of the Vietnam-era veteran population distorts the ability to identify seasonality in the series.

Table A-10. Employment status of the noninstitutional population for ten large States

[Numbers in thousands]

State and employment status	Not seasonally adjusted*			Seasonally adjusted					
	Feb. 1978	Jan. 1979	Feb. 1979	Feb. 1978	Oct. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979
California									
Civilian noninstitutional population[1]	16,184	16,536	16,561	16,184	16,448	16,477	16,506	16,536	16,561
Civilian labor force	10,425	10,806	10,826	10,461	10,723	10,718	10,760	10,824	10,863
Employed	9,568	10,027	10,064	9,653	10,034	10,065	10,084	10,137	10,149
Unemployed	857	780	762	808	689	653	676	687	714
Unemployment rate	8.2	7.2	7.0	7.7	6.4	6.1	6.3	6.3	6.6
Florida									
Civilian noninstitutional population[2]	6,453	6,620	6,636	6,453	6,567	6,585	6,602	6,620	6,636
Civilian labor force	3,623	3,756	3,781	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,402	3,473	3,560	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	222	283	221	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	6.1	7.5	5.8	(2)	(2)	(2)	(2)	(2)	(2)
Illinois									
Civilian noninstitutional population[1]	8,183	8,247	8,252	8,183	8,230	8,236	8,243	8,247	8,252
Civilian labor force	5,227	5,272	5,224	5,262	5,402	5,430	5,382	5,317	5,260
Employed	4,854	4,969	4,929	4,921	5,100	5,120	5,045	5,051	4,996
Unemployed	373	303	296	341	302	310	337	266	264
Unemployment rate	7.1	5.7	5.7	6.5	5.6	5.7	6.3	5.0	5.0
Massachusetts									
Civilian noninstitutional population[1]	4,313	4,354	4,357	4,313	4,341	4,346	4,350	4,354	4,357
Civilian labor force	2,790	2,905	2,918	(2)	(2)	(2)	(2)	(2)	(2)
Employed	2,590	2,685	2,725	2,641	2,657	2,675	2,676	2,727	2,775
Unemployed	199	219	193	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	7.1	7.5	6.6	(2)	(2)	(2)	(2)	(2)	(2)
Michigan									
Civilian noninstitutional population[1]	6,613	6,694	6,701	6,613	6,672	6,679	6,687	6,694	6,701
Civilian labor force	4,171	4,257	4,288	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,872	3,916	3,937	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	299	341	352	252	293	299	304	329	305
Unemployment rate	7.2	8.0	8.2	(2)	(2)	(2)	(2)	(2)	(2)
New Jersey									
Civilian noninstitutional population[1]	5,439	5,488	5,492	5,439	5,472	5,477	5,482	5,488	5,492
Civilian labor force	3,323	3,511	3,546	3,361	3,536	3,563	3,592	3,569	3,583
Employed	3,047	3,249	3,250	3,109	3,293	3,330	3,326	3,327	3,312
Unemployed	277	262	296	252	243	233	266	242	271
Unemployment rate	8.3	7.5	8.3	7.5	6.9	6.5	7.4	6.8	7.6
New York									
Civilian noninstitutional population[1]	13,271	13,276	13,278	13,271	13,264	13,268	13,273	13,276	13,278
Civilian labor force	7,716	7,987	7,951	7,793	7,949	7,965	8,056	8,094	8,030
Employed	7,030	7,369	7,366	7,162	7,298	7,405	7,512	7,531	7,498
Unemployed	686	618	586	631	651	560	544	563	532
Unemployment rate	8.9	7.7	7.4	8.1	8.2	7.0	6.8	7.0	6.6
Ohio									
Civilian noninstitutional population[1]	7,833	7,912	7,917	7,833	7,893	7,900	7,906	7,912	7,917
Civilian labor force	4,743	4,997	4,983	4,814	5,084	5,109	5,118	5,065	5,056
Employed	4,446	4,666	4,658	4,561	4,823	4,835	4,851	4,760	4,773
Unemployed	297	331	326	253	261	274	267	305	283
Unemployment rate	6.3	6.6	6.5	5.3	5.1	5.4	5.2	6.0	5.6
Pennsylvania									
Civilian noninstitutional population[1]	8,836	8,881	8,885	8,836	8,864	8,870	8,875	8,881	8,885
Civilian labor force	5,132	5,276	5,240	5,168	5,300	5,350	5,357	5,333	5,275
Employed	4,740	4,900	4,845	4,842	4,911	4,960	4,998	4,994	4,947
Unemployed	392	376	394	326	389	390	359	339	328
Unemployment rate	7.6	7.1	7.5	6.3	7.3	7.3	6.7	6.4	6.2
Texas									
Civilian noninstitutional population[1]	9,112	9,309	9,325	9,112	9,254	9,272	9,291	9,309	9,325
Civilian labor force	5,834	6,085	6,154	5,899	6,048	6,094	6,116	6,150	6,220
Employed	5,517	5,816	5,878	5,601	5,768	5,797	5,813	5,913	5,963
Unemployed	317	269	276	298	280	297	303	237	257
Unemployment rate	5.4	4.4	4.5	5.1	4.6	4.9	5.0	3.9	4.1

[1] The population figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and the seasonally adjusted columns.

* These are the official Bureau of Labor Statistics' estimates used in the administration of Federal fund allocation programs.

[2] Seasonally-adjusted data are not presented for this series, because the variations that are due to seasonal influences cannot be separated with sufficient precision from those which stem from the trend-cycle and irregular components of the original time series.

Table B-1. Employees on nonagricultural payrolls by industry

[In thousands]

Industry	Not seasonally adjusted				Seasonally adjusted					
	FEB. 1978	DEC. 1978	JAN. p 1979	FEB. p 1979	FEB. 1978	OCT. 1978	NOV. 1978	DEC. 1978	JAN.p 1979	Fe...p 1979
TOTAL	82,962	88,054	86,236	86,441	84,188	86,573	87,036	87,281	87,465	87,7...
GOODS-PRODUCING	23,996	25,967	25,416	25,359	24,724	25,670	25,872	26,038	26,099	26,14...
MINING	668	898	895	894	884	893	903	904	908	91...
CONSTRUCTION	3,464	4,331	3,932	3,861	3,901	4,341	4,368	4,397	4,379	4,34...
MANUFACTURING	19,864	20,738	20,589	20,604	20,139	20,436	20,601	20,729	20,812	20,88...
Production workers	14,250	14,927	14,794	14,821	14,499	14,655	14,803	14,919	15,000	15,07...
DURABLE GOODS	11,827	12,519	12,456	12,472	11,986	12,305	12,410	12,491	12,553	12,63...
Production workers	8,476	9,012	8,951	8,978	8,620	8,816	8,909	8,985	9,039	9,12...
Lumber and wood products	720.1	751.9	737.2	740.0	756	748	759	765	770	77...
Furniture and fixtures	484.5	493.7	491.9	491.4	487	484	487	491	494	49...
Stone, clay, and glass products	659.5	696.8	677.2	682.2	691	696	701	707	705	71...
Primary metal industries	1,179.6	1,235.5	1,234.0	1,233.5	1,193	1,220	1,235	1,240	1,239	1,24...
Fabricated metal products	1,616.8	1,700.3	1,691.5	1,686.9	1,638	1,667	1,684	1,697	1,705	1,70...
Machinery, except electrical	2,277.7	2,439.7	2,452.7	2,468.5	2,271	2,391	2,404	2,425	2,445	2,46...
Electric and electronic equipment	1,925.1	2,025.1	2,021.0	2,028.7	1,935	1,987	2,001	2,011	2,025	2,03...
Transportation equipment	1,893.5	2,043.3	2,029.4	2,015.1	1,928	1,991	2,010	2,021	2,029	2,05...
Instruments and related products	632.7	677.8	680.3	685.4	635	665	671	676	682	68...
Miscellaneous manufacturing	437.9	451.8	441.1	440.1	452	496	458	458	459	45...
NONDURABLE GOODS	8,037	8,219	8,133	8,132	8,153	8,131	8,191	8,238	8,259	8,25...
Production workers	5,774	5,915	5,843	5,843	5,879	5,839	5,894	5,934	5,961	5,94...
Food and kindred products	1,631.9	1,690.5	1,652.5	1,635.4	1,705	1,667	1,693	1,711	1,714	1,70...
Tobacco manufacturers	72.8	76.5	73.2	70.3	74	71	71	72	72	72
Textile mill products	912.8	910.4	904.3	904.2	917	907	910	910	910	90...
Apparel and other textile products	1,309.5	1,305.3	1,290.8	1,301.9	1,315	1,307	1,307	1,312	1,317	1,30...
Paper and allied products	691.8	705.6	701.7	701.5	699	692	700	705	708	70...
Printing and publishing	1,160.8	1,212.4	1,206.1	1,212.7	1,163	1,185	1,198	1,203	1,209	1,21...
Chemicals and allied products	1,073.6	1,094.0	1,092.0	1,093.9	1,081	1,089	1,093	1,097	1,101	1,10...
Petroleum and coal products	201.9	209.0	205.2	205.7	208	210	210	211	211	21...
Rubber and misc. plastics products	731.6	769.8	767.0	768.0	738	752	761	771	773	77...
Leather and leather products	250.7	245.5	240.0	237.9	253	251	248	246	244	24...
SERVICE-PRODUCING	58,966	62,087	60,820	61,082	59,464	60,903	61,164	61,251	61,366	61,61...
TRANSPORTATION AND PUBLIC UTILITIES	4,720	4,992	4,907	4,933	4,782	4,922	4,947	4,967	4,962	4,99...
WHOLESALE AND RETAIL TRADE	18,615	20,388	19,599	19,445	19,071	19,632	19,761	19,697	19,797	19,92...
WHOLESALE TRADE	4,780	5,810	4,972	4,971	4,828	4,945	4,968	4,985	5,007	5,02...
RETAIL TRADE	13,835	15,378	14,627	14,474	14,243	14,687	14,733	14,702	14,790	14,90...
FINANCE, INSURANCE, AND REAL ESTATE	4,550	4,775	4,773	4,785	4,591	4,737	4,774	4,789	4,811	4,82...
SERVICES	15,482	16,245	16,021	16,181	15,870	16,169	16,270	16,327	16,315	16,37...
GOVERNMENT	15,599	15,687	15,520	15,738	15,350	15,443	15,472	15,471	15,481	15,48...
FEDERAL	2,720	2,733	2,718	2,726	2,736	2,760	2,757	2,734	2,743	2,74...
STATE AND LOCAL	12,879	12,954	12,802	13,012	12,614	12,683	12,715	12,737	12,738	12,74...

pPreliminary.

Table B-2. Average weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	FEB. 1978	DEC. 1978	JAN. 1979 p	FEB. 1979 p	FEB. 1978	OCT. 1978	NOV. 1978	DEC. 1978	JAN. 1979 p	FEB. 1979 p
TOTAL PRIVATE	35.3	34.1	35.2	35.4	35.7	35.9	35.8	35.9	35.7	35.7
MINING	42.9	43.5	42.5	43.0	43.2	43.0	43.3	43.7	43.5	43.3
CONSTRUCTION	34.6	37.1	34.7	35.4	35.6	36.9	36.8	37.2	36.0	36.4
MANUFACTURING	39.6	41.4	40.1	40.2	40.1	40.5	40.7	40.7	40.7	40.6
Overtime hours	3.5	3.9	3.5	3.5	3.7	3.6	3.7	3.8	3.8	3.8
DURABLE GOODS	40.3	42.3	40.8	41.0	40.7	41.2	41.4	41.5	41.4	41.4
Overtime hours	3.7	4.3	3.8	3.9	4.0	3.9	4.0	4.1	4.2	4.2
Lumber and wood products	39.1	40.1	38.5	39.0	39.6	40.1	40.1	40.1	40.0	39.5
Furniture and fixtures	39.2	40.1	38.1	38.1	40.0	39.0	39.2	39.2	39.1	38.8
Stone, clay, and glass products	40.0	42.2	40.4	40.6	40.9	41.8	41.9	42.0	41.3	41.5
Primary metal industries	41.4	42.5	41.9	41.6	41.6	42.1	42.3	42.2	42.2	41.8
Fabricated metal products	40.2	42.2	40.8	40.8	40.7	40.8	41.1	41.4	41.2	41.3
Machinery, except electrical	41.7	43.6	42.0	42.4	41.8	42.0	42.2	42.5	42.1	42.5
Electric and electronic equipment	39.6	41.3	40.2	40.3	40.0	40.3	40.4	40.5	40.6	40.7
Transportation equipment	40.2	44.5	41.9	42.1	40.9	42.6	42.9	42.9	43.0	42.8
Instruments and related products	40.4	41.7	40.7	41.0	40.6	40.9	40.9	40.9	41.2	41.2
Miscellaneous manufacturing	38.0	39.3	38.5	38.5	38.3	38.8	38.8	38.8	39.0	38.8
NONDURABLE GOODS	38.7	39.9	39.0	39.0	39.1	39.3	39.6	39.5	39.6	39.4
Overtime hours	3.1	3.3	3.0	3.0	3.3	3.2	3.2	3.3	3.2	3.2
Food and kindred products	39.2	40.4	39.5	39.1	39.7	39.9	40.0	40.0	40.1	39.6
Tobacco manufacturers	37.8	38.8	36.2	35.8	38.3	36.7	37.4	38.1	36.8	36.3
Textile mill products	40.1	40.8	39.9	39.9	40.3	40.3	40.6	40.6	40.9	40.1
Apparel and other textile products	35.0	35.8	34.6	34.9	35.5	35.2	35.7	35.6	35.3	35.4
Paper and allied products	41.9	43.4	42.6	42.4	42.5	42.6	43.1	42.7	42.9	43.0
Printing and publishing	37.0	38.2	37.1	37.4	37.4	37.7	37.9	37.6	37.7	37.8
Chemicals and allied products	41.4	42.3	41.7	41.7	41.6	41.9	42.1	41.8	42.0	42.0
Petroleum and coal products	42.1	43.8	43.6	44.1	42.8	43.9	44.2	43.7	44.2	44.9
Rubber and misc. plastics products	39.5	41.9	41.1	41.1	39.8	41.0	41.1	41.2	41.5	41.4
Leather and leather products	36.0	37.1	36.2	36.1	36.4	37.1	36.8	36.7	36.9	36.8
TRANSPORTATION AND PUBLIC UTILITIES	40.0	40.2	39.4	39.6	40.1	40.1	40.0	40.0	40.0	39.7
WHOLESALE AND RETAIL TRADE	32.3	33.1	31.9	32.1	32.7	32.9	32.8	32.9	32.4	32.6
WHOLESALE TRADE	38.4	39.1	38.4	38.5	38.7	38.9	38.8	38.9	38.7	38.8
RETAIL TRADE	30.4	31.3	29.9	30.2	30.9	31.0	30.9	31.0	30.9	30.7
FINANCE, INSURANCE, AND REAL ESTATE	36.4	36.3	36.4	36.3	36.3	36.6	36.3	36.3	36.3	36.2
SERVICES	32.7	32.5	32.4	32.4	32.9	32.8	32.7	32.5	32.6	32.6

[1] Data relate to production workers in mining and manufacturing; to construction workers in construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls.

p = preliminary.

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers[1] on private nonagricultural payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	FEB. 1978	DEC. 1978	JAN.,p 1979	FEB.,p 1979	FEB. 1978	DEC. 1978	JAN.,p 1979	FEB.,p 1979
TOTAL PRIVATE	$5.49	$5.91	$5.95	$5.97	$193.80	$213.35	$209.44	$211.34
Seasonally adjusted	5.49	5.91	5.94	5.97	195.99	212.17	212.06	213.13
MINING	6.93	8.05	8.20	8.21	297.30	350.18	348.50	353.03
CONSTRUCTION	8.32	8.91	8.96	8.97	287.87	330.56	310.91	317.54
MANUFACTURING	5.98	6.47	6.48	6.50	236.81	267.86	259.85	261.30
DURABLE GOODS	6.37	6.92	6.90	6.93	256.71	292.72	281.52	284.13
Lumber and wood products	5.39	5.79	5.81	5.82	210.75	232.18	223.69	226.98
Furniture and fixtures	4.55	4.86	4.89	4.93	178.36	194.89	186.31	187.83
Stone, clay, and glass products	6.04	6.57	6.55	6.57	241.60	277.25	264.62	266.74
Primary metal industries	7.96	8.56	8.58	8.66	329.54	363.80	359.50	360.26
Fabricated metal products	6.13	6.62	6.59	6.63	246.43	279.36	268.87	270.50
Machinery, except electrical	6.59	7.13	7.07	7.13	274.80	310.87	296.94	302.31
Electric and electronic equipment	5.68	6.10	6.12	6.14	224.93	251.93	246.02	247.44
Transportation equipment	7.60	8.40	8.33	8.32	305.52	373.80	349.03	350.27
Instruments and related products	5.59	5.95	5.97	6.04	225.84	248.12	242.98	247.64
Miscellaneous manufacturing	4.97	4.86	4.92	4.94	173.66	191.00	189.42	190.19
NONDURABLE GOODS	5.38	5.75	5.81	5.81	208.21	229.43	226.59	226.59
Food and kindred products	5.68	6.02	6.10	6.11	222.66	243.21	240.95	238.90
Tobacco manufactures	6.06	6.32	6.46	6.57	229.07	245.22	233.85	235.21
Textile mill products	4.18	4.48	4.51	4.50	166.82	182.78	179.95	179.55
Apparel and other textile products	3.85	4.07	4.17	4.18	134.75	145.71	144.28	145.88
Paper and allied products	6.32	6.79	6.80	6.82	264.81	294.69	289.68	289.17
Printing and publishing	6.34	6.68	6.69	6.62	234.58	255.18	248.20	247.59
Chemicals and allied products	6.82	7.28	7.31	7.31	282.35	307.94	304.83	304.83
Petroleum and coal products	8.57	8.86	8.97	8.94	360.80	388.07	391.09	394.25
Rubber and misc. plastics products	5.33	5.75	5.81	5.79	210.54	240.93	238.79	237.97
Leather and leather products	3.84	4.01	4.15	4.15	138.24	148.77	150.23	149.82
TRANSPORTATION AND PUBLIC UTILITIES	7.37	7.82	7.79	7.82	294.80	314.36	306.93	309.67
WHOLESALE AND RETAIL TRADE	4.54	4.80	4.95	4.96	146.64	158.88	157.91	159.22
WHOLESALE TRADE	5.66	6.15	6.18	6.18	217.34	240.47	237.31	237.93
RETAIL TRADE	4.10	4.31	4.46	4.47	124.64	134.90	133.35	134.99
FINANCE, INSURANCE, AND REAL ESTATE	4.76	5.07	5.13	5.16	173.26	184.04	186.73	187.31
SERVICES	4.91	5.16	5.23	5.26	160.56	167.70	169.45	170.42

[1] See footnote 1, table B-2.

p=preliminary.

ESTABLISHMENT DATA

Table B-4. Hourly earnings index for production or nonsupervisory workers on private nonagricultural payrolls by industry division, seasonally adjusted

[1967=100]

Industry	FEB. 1978	SEPT. 1978	OCT. 1978	NOV. 1978	DEC. 1978	JAN. P 1979	FEB. P 1979	Percent change from— FEB. 1978–FEB. 1979	Percent change from— JAN. 1979–FEB. 1979
TOTAL PRIVATE NONFARM:									
Current dollars	206.6	216.2	218.0	219.0	220.7	222.3	223.1	8.0	0.4
Constant (1967) dollars	109.9	108.7	108.7	108.5	108.6	108.3	N.A.	(2)	(3)
MINING	221.8	247.1	249.7	249.8	249.1	251.9	252.7	14.3	.3
CONSTRUCTION	208.1	209.9	210.6	211.4	212.5	213.5	215.3	7.6	.8
MANUFACTURING	209.4	218.9	220.8	222.4	224.1	225.3	226.5	8.2	.6
TRANSPORTATION AND PUBLIC UTILITIES	224.9	233.3	234.0	234.7	238.3	238.0	239.0	6.3	.4
WHOLESALE AND RETAIL TRADE	199.7	209.9	211.6	213.0	214.6	217.6	217.8	9.1	.1
FINANCE, INSURANCE, AND REAL ESTATE	187.3	198.2	199.8	200.8	202.0	202.1	202.8	8.3	.4
SERVICES	206.8	214.8	217.5	217.8	218.9	221.4	221.7	7.2	.1

[1] See footnote 1, table B-2.
[2] PERCENT CHANGE WAS -1.3 FROM JANUARY 1978 TO JANUARY 1979, THE LATEST MONTH AVAILABLE.
[3] PERCENT CHANGE WAS -.2 FROM DECEMBER 1978 TO JANUARY 1979, THE LATEST MONTH AVAILABLE.

N.A. = not available.
P=preliminary.

NOTE: All series are in current dollars except where indicated. The index excludes effects of two types of changes that are unrelated to underlying wage-rate developments. Fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes in the proportion of workers in high-wage and low-wage industries.

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry, seasonally adjusted

[1967=100]

Industry division and group	1978 FEB.	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	1979 JAN.P	FEB.P
TOTAL PRIVATE	117.1	119.1	120.4	120.0	120.6	120.6	120.4	120.8	121.6	122.4	122.9	122.4	123.0
GOODS-PRODUCING	103.9	103.6	104.0	105.1	106.0	106.1	105.4	105.5	106.5	108.0	109.1	108.6	109.0
MINING	106.8	111.3	144.2	143.1	144.0	143.5	145.7	144.4	145.2	148.0	149.1	149.7	150.6
CONSTRUCTION	104.2	111.5	118.8	117.1	122.8	124.2	122.8	122.6	123.8	124.3	126.5	120.6	120.7
MANUFACTURING	100.1	102.0	102.5	101.6	101.7	101.6	101.0	101.2	102.1	103.7	104.6	105.1	105.4
DURABLE GOODS	101.9	103.9	104.2	103.5	103.8	104.0	103.5	103.9	105.3	107.1	108.3	108.7	109.7
Lumber and wood products	114.0	114.3	115.0	111.8	113.6	112.3	110.7	111.6	113.9	115.3	116.2	116.8	116.2
Furniture and fixtures	111.1	112.5	112.5	110.3	109.5	108.3	106.4	106.2	107.5	108.6	109.4	109.7	109.1
Stone, clay, and glass products	108.4	111.8	112.7	111.4	112.4	111.1	109.8	110.1	110.8	112.6	113.3	111.2	113.3
Primary metal industries	93.6	92.8	92.9	93.9	94.1	94.6	95.3	95.9	96.9	99.8	99.2	99.1	99.2
Fabricated metal products	101.4	102.9	103.5	103.3	102.4	102.0	101.8	102.0	103.1	105.2	106.8	106.5	107.6
Machinery, except electrical	107.1	109.4	110.1	109.5	111.3	112.1	110.8	111.5	113.6	116.5	116.9	116.9	119.5
Electric and electronic equipment	98.8	101.2	100.4	99.8	99.8	101.8	101.1	100.1	101.4	102.6	103.4	104.7	104.2
Transportation equipment	93.7	97.8	97.5	96.4	95.8	96.2	96.1	97.7	100.4	108.8	103.8	104.9	105.5
Instruments and related products	117.5	120.9	121.7	120.8	122.4	123.6	123.9	123.9	124.5	125.7	126.9	129.4	131.9
Miscellaneous manufacturing industry	99.0	102.0	102.6	101.5	101.4	99.8	100.6	100.3	100.9	101.8	101.5	102.9	100.6
NONDURABLE GOODS	97.4	99.2	99.9	98.9	98.7	98.1	97.2	97.2	97.2	98.8	99.1	99.9	99.2
Food and kindred products	94.7	96.2	96.4	94.6	94.0	93.6	91.4	91.3	92.2	96.6	96.1	96.7	96.4
Tobacco manufacturers	79.4	82.0	80.2	81.5	84.1	78.6	71.5	74.5	73.5	79.5	77.6	74.9	72.6
Textile mill products	92.5	93.7	93.4	92.4	91.8	91.5	91.2	91.8	91.6	92.4	92.2	93.4	91.1
Apparel and other textile products	90.1	91.6	93.2	91.9	91.4	90.1	90.1	90.1	88.7	90.0	89.0	89.5	89.2
Paper and allied products	99.1	101.0	102.4	101.9	101.9	101.9	99.2	99.0	98.2	100.5	100.7	101.9	102.7
Printing and publishing	96.9	99.3	99.1	98.2	98.6	99.1	98.3	97.8	98.5	100.3	100.1	101.1	102.3
Chemicals and allied products	104.8	106.6	106.9	106.9	106.9	106.6	106.0	106.0	106.2	107.2	107.0	108.2	108.7
Petroleum and coal products	119.0	121.3	122.1	118.4	120.6	121.2	123.2	122.7	123.6	126.7	124.2	126.8	129.4
Rubber and misc. plastics products	140.1	144.5	147.3	146.6	147.0	146.2	145.4	145.0	147.0	149.6	152.3	153.9	154.3
Leather and leather products	67.8	69.1	71.3	70.4	70.1	67.1	69.1	69.6	68.8	67.3	66.5	66.5	64.9
SERVICE-PRODUCING	128.4	129.6	130.5	130.5	130.7	130.7	130.8	131.4	132.6	132.3	132.5	132.0	132.8
TRANSPORTATION AND PUBLIC UTILITIES	107.7	109.1	108.7	109.0	109.4	106.5	107.7	108.2	109.9	110.2	110.3	110.4	110.5
WHOLESALE AND RETAIL TRADE	126.2	128.9	128.4	128.8	128.8	127.4	127.2	127.5	128.2	128.4	128.7	127.4	129.0
WHOLESALE TRADE	123.9	125.2	126.0	125.2	126.1	125.7	126.1	127.1	127.4	127.6	128.5	128.0	128.9
RETAIL TRADE	126.4	128.1	128.6	127.3	127.8	128.0	127.7	127.7	128.5	128.7	128.8	127.1	129.0
FINANCE, INSURANCE, AND REAL ESTATE	135.1	135.4	137.5	136.2	137.9	139.0	139.2	139.6	140.5	140.6	140.9	141.7	141.7
SERVICES	141.8	143.3	144.1	143.8	143.9	144.1	144.1	145.1	145.0	145.6	145.4	145.4	145.9

[1] See footnote 1, table B-2.

P=preliminary.

Table B-6. Indexes of diffusion: Percent of industries in which employment[1] increased

Year and month	Over 1-month span	Over 3-month span	Over 6-month span	Over 12-month span
1976				
January	78.2	85.6	87.2	85.2
February	72.4	84.9	85.8	84.0
March	69.5	81.4	82.0	85.2
April	70.1	72.4	75.6	78.8
May	58.1	67.2	68.3	82.6
June	57.8	65.1	71.2	79.9
July	58.4	57.8	63.1	78.5
August	49.1	64.0	65.1	77.6
September	64.8	53.8	66.3	80.2
October	47.1	65.1	73.3	80.8
November	67.4	64.2	78.8	80.8
December	66.6	81.4	81.4	82.6
1977				
January	76.2	83.1	88.1	78.8
February	66.0	86.3	87.8	80.5
March	74.7	81.1	85.2	80.2
April	66.0	79.4	79.4	84.6
May	64.8	76.2	75.9	84.0
June	71.2	68.0	72.1	83.1
July	59.3	63.4	69.8	82.6
August	51.7	58.7	74.1	83.7
September	60.8	62.5	72.1	82.6
October	60.5	73.8	77.9	81.1
November	73.8	75.3	82.0	81.1
December	72.1	79.7	83.1	80.8
1978				
January	69.8	80.2	85.5	80.5
February	70.3	80.2	79.9	79.1
March	70.1	75.9	77.9	77.6
April	62.8	67.4	68.9	78.5
May	56.4	63.7	67.7	80.5
June	67.2	62.5	59.6	82.6
July	54.9	57.0	61.3	80.2p
August	51.7	49.7	74.4	77.9p
September	57.6	58.7	77.9	
October	70.6	75.6	81.4p	
November	80.2	85.5	83.4p	
December	79.7	86.9p		
1979				
January	74.4p	80.8p		
February	65.7p			
March				
April				
May				
June				
July				
August				
September				
October				
November				
December				

[1] Number of employees, seasonally adjusted, on payrolls of 172 private nonagricultural industries.
p = preliminary.

Senator BENTSEN. Thank you, Commissioner Norwood.

First, let me congratulate you on receiving the Philip Arnow Award. I understand that can only be given once in a lifetime and it is for continuous excellent service, and we are very pleased to comment on it this morning.

Ms. NORWOOD. Thank you, sir.

Senator BENTSEN. It is very well deserved.

Senator PROXMIRE. If the Chair would yield; I would like to join the chairman in those congratulations. I had an opportunity to work with you when you were assistant to Mr. Shiskin, and throughout the years, you have been a superb economist and you have certainly contributed greatly to the understanding of this committee and the Congress and we are in your debt.

Ms. NORWOOD. Thank you, I appreciate that very much.

Senator PROXMIRE. You are a very deserving recipient.

Senator BENTSEN. I want to ask you a question about housing. The Federal authorities have just moved to cut out the money certificate quarter-point interest rate advantage. They obviously have done that because they think the economy is overheating. Won't that really slow down housing starts and can't we expect substantial increases in unemployment in the housing industry as a result?

Ms. NORWOOD. I think it certainly has been taken in order to attempt to curtail some of the funds that are going into construction. Housing starts, residential housing starts have gone down, of course, in January. In addition, I think that——

Senator BENTSEN. But you still have an amount of employed people in housing, approximately 400,000 more than 1 year ago, as I understand it.

Ms. NORWOOD. Yes. But in the last few months in construction, employment has shown some downturn. That may be due to bad weather. We are not sure that it is necessarily because of a slowdown in housing, although there is some evidence that the rates of price increase in construction materials is slowing down. In addition, of course, the mortgage rates for interest have hit the usury limit in a large number of States and that would have some effect.

Senator BENTSEN. Well, let's get back to the question though. If they have cut money certificates by a quarter of 1 point, that will obviously discourage some savers and that has to cut back on the money supply. Won't that in turn cut back on housing starts and doesn't that mean more unemployment in the housing industry?

Ms. NORWOOD. It certainly is possible that that could happen. I think the question is, however, what are the alternative uses of those funds? I think we will have to wait and see.

The rates of 9 percent are still fairly high. Whether that quarter percent will mean that people will channel their savings into other areas remains to be seen. I think it is true that the rate of consumer savings is quite low.

Senator BENTSEN. The rate of consumer savings in this country is the lowest of any major nation in the world.

Ms. NORWOOD. And it is lower than it has been.

Senator BENTSEN. That is correct.

Now, Commissioner, obviously inflation is still the No. 1 problem in this country. We talk about unemployment being at 5.7 percent,

which although it is an improvement, is not that major a change in the unemployment rate. When you stop to think about the incredible creation of new jobs in this country, that in the last 2 years you have had 7.5 million people added to employment, one realizes no other country in the world has duplicated that. But one of the reasons for the increased labor force has to be because of the problems of inflation, and families having a tough time making ends meet. You have many housewives who were not a part of the labor force, who are being included in it now. They are having to take jobs. There is no question in my mind but that that is one of the reasons. And teenagers who might not have taken jobs otherwise, are taking jobs because of the pressures of inflation on meeting the family budget.

Would you concur in that?

Ms. NORWOOD. I think that certainly is an element, Mr. Chairman. I think there are other things as well and it is very hard to measure them or to have any specific information on them. I think there is, also, an expectation in this country that the standard of living should increase. In a period of inflation this may mean that in order to increase a family's standard of living the family has to have an additional income as well, just to keep up.

In addition, of course, there are social changes going on, as we know.

Senator BENTSEN. Commissioner, has the Bureau of Labor Statistics made any analysis of industries by two digit SIC code classification to see whether there is any statistical evidence within the Producer Price Index that industries are violating the guidelines?

Ms. NORWOOD. Mr. Chairman, the Bureau of Labor Statistics tries to provide the most effective analysis we can of what is happening to prices. It is the responsibility of other agencies of the Government to determine the effectiveness or lack of effectiveness of particular policies. We try to report—perhaps by industry at times, depending on whether it is important, or by commodity grouping—what is actually happening.

Senator BENTSEN. I don't believe that answered my question.

Ms. NORWOOD. Well, the answer, I think, is that we do analyses of the Producer Price Index data and the Consumer Price and the Employment Situation data to look at the changes that have occurred. We have not specifically looked at the data in order to determine whether companies have violated the guidelines, which I think is the question.

Senator BENTSEN. That's right. And that is the question that wasn't answered. Now you are coming to it—you've not checked that.

Ms. NORWOOD. We have not done that and what I was trying to explain, sir, is the reason we do not do that. We feel that in order to be an agency that is effective in collecting information that is needed by policymakers, we should leave compliance efforts to the agencies who are responsible for that. Obviously, in any discussion of the economy and of price change in the construction area, or in any other area, one can certainly draw his conclusions about actual compliance.

Senator BENTSEN. Which of the producers price increases in February do you see translating into price increases at the retail level in April or March?

Ms. NORWOOD. Well, of course, food moves very rapidly. Food price increases will show up at the retail level, and some of them have already. The crude materials price increases will eventually find their

way through, but it will take somewhat longer. Many of the scrap metals, the whole nonferrous metals area and some of the intermediate level price increases will find their way through over somewhat a longer period of time.

Mr. Layng has done more analysis of the time that it takes for price increases to find their way through the economy. He may have something more to contribute.

Mr. LAYNG. I don't have a great deal to add to that other than the fact that in the area of some of the durable consumer finished goods it can take as long as 6 to 9 months and sometimes longer for those price increases to be transmitted because purchasing is done on a seasonal basis. There may be some purchasing like that going on particularly in the furniture area where retailers are now buying furniture that they will be selling in the summer or later on in the year. Some of the price increases that are reflected now may be in the seasonal merchandise that will not come on store shelves until later.

But predominantly in the finished goods consumer area, most of the items move relatively quickly. As Ms. Norwood indicated, the gasoline and food areas move quickly, as do automobiles.

Senator BENTSEN. Commissioner, I hear a lot of questions from people asking are we going to have a recession and when are we going to have a recession? I listen to the economists putting it off farther and farther in time, but do not these figures you have quoted to us on employment and unemployment and the creation of new jobs and the acceleration of the creation of new jobs, mean that no recession is imminent

Ms. NORWOOD. I see no sign in our figures of anything but very full business activity.

Senator BENTSEN. Well, don't we really see the other side of it? Don't we see the economy overheating?

Ms. NORWOOD. There certainly is a great deal of concern, I think, particularly on the price side. I believe that there is general agreement that there needs to be some dampening in order to attempt to reduce the rate of inflation that we are experiencing.

Senator BENTSEN. Well, I have seen some numbers that didn't add up to me, and that was the edging down of prices in processed fuels in February, on commercial jet fuel, residual fuel oil, and liquefied petroleum gas. At the same time I am reading these stories about jet fuel shortages.

I can't believe that at a time of shortages that prices would fall; would you explain that to me?

Ms. NORWOOD. I believe we have no further information on that situation. Perhaps Mr. Layng has something to contribute.

Mr. LAYNG. The calculation of that component of the Index is performed using a term we refer to as "realized price" which essentially is taking a revenue and dividing by a quantity for as detailed a specification as possible. In the jet fuel area you have a large amount of contractual operations, large amounts of that product move through relatively, long-term contracts with escalators. With that kind of measure you can get some month-to-month variations when things are changing. I would essentially agree with you that the underlying trend is not that, but you get some month-to-month variations.

I am sure if you look over a longer span you will see that it is in fact, increasing and not decreasing. Based on the information that we have heard, the expectation is that those prices are going to be rising.

Senator BENTSEN. Commissioner, I know the White House is concerned, as we all are, with the rising cost of food. I have heard some comments that they are going to take some strong affirmative action to try to slow down the increase. One of the ways they are talking about doing it is increasing beef imports, cracking down on dairy cooperatives, encouraging more soybean planting in this country—do you see any significant curtailment in price increases as a result of such action? Did you see any significant drop in prices of beef when the President increased imports last year?

Ms. NORWOOD. Was there?

Mr. LAYNG. No, not a great deal, I don't believe.

Ms. NORWOOD. The experience last year, as I recall it, did not show a big drop. But, of course, the situation could be different. It depends upon a whole variety of other factors. There seems to be some evidence that there is a short supply of beef and, obviously, if you increase the supply——

Senator BENTSEN. That's true around the world.

Ms. NORWOOD [continuing]. Through imports, or any other way, that would——

Senator BENTSEN. That's true around the world, not just the United States.

Ms. NORWOOD. Yes, of course. There does not seem to be a great deal that can be done very quickly in any case in order to bring about a reaction in food prices.

Senator BENTSEN. Commissioner, how many blacks are outside of the labor force as compared to whites?

Can you compare that with past recessions or expansion periods?

Ms. NORWOOD. We could provide that for the record.

Senator BENTSEN. I would like to have that for the record.

[The information referred to follows:]

LEVEL AND RATE OF "NONPARTICIPATION" [1] IN THE CIVILIAN LABOR FORCE DURI NG EXPANSION PERIODS, SEASONALLY ADJUSTED

[Numbers in thousands]

Expansion period	Black and other				White			
	Trough		Peak		Trough		Peak	
	Number	Rate	Number	Rate	Number	Rate	Number	Rate
April 1958 to April 1960	3,879	34.4	4,202	36.3	41,843	41.0	43,106	41.1
February 1961 to December 1969	4,281	35.7	5,538	37.9	43,563	41.0	48,314	40.0
November 1970 to November 1973	5,823	38.7	6,640	39.4	48,782	39.7	50,398	38.7
March 1975 to current month (February 1979)	7,174	40.8	7,486	38.0	51,240	38.6	50,430	35.8

[1] Rate of nonparticipation represents those not in the labor force as a percent of the civilian noninstitutional population. It is the increase of the labor force participation rate.

Source: U.S. Department of Labor, Bureau of Labor Statistics, Mar. 16, 1979.

Senator BENTSEN. Do you find any regional differences in family income for blacks as opposed to whites?

Ms. NORWOOD. There certainly are some. I have recently looked at overall figures by region for family income and at the change in them. I can certainly provide for the record a regional breakdown of the differentials between blacks and whites.

Senator BENTSEN. If you would.

[The information referred to follows:]

MEDIAN TOTAL FAMILY INCOME IN 1977

	White	Black	Income of blacks as a proportion of income of whites
United States	$16,740	$9,563	57.1
Northeast	17,302	10,285	59.4
North Central	17,231	10,690	62.0
South	15,721	8,962	57.0
West	16,985	9,917	58.4

Source: U.S. Bureau of the Census, Current Population Survey, March 1978.

Senator BENTSEN. My time has expired. Thank you.

Senator Proxmire.

Senator PROXMIRE. Commissioner, in your statement you point out that the Producer Price Index for the first 2 months of this year shows an increase of 2.4 percent. That would be at an annual rate of close to 15 percent. And you say that this—the elements of this, particularly if you go back to the crude materials, crude goods, intermediate goods and so forth—suggests that prices are going to increase to the consumer level for some months.

Can you give us a little bit of quantification on that? How much of an increase? Would you say that there is any prospect, for example, that price increases could slow down to the level the administration predicted? They predicted, as you know, a 7.5-percent increase for the year.

Ms. NORWOOD. Yes.

Senator PROXMIRE. As I calculate it, already in the first 2 months they have lost 2.4 percent of that, which means in the remaining 10 months we have to average 0.5 percent per month to come in at the administration's predicted level. Would you say on the basis of the statistics you have now that that is probably not realistic, that 7.5-percent target?

Ms. NORWOOD. It would certainly be very difficult, Senator Proxmire. Everybody is talking about the problems of food price increases and the Department of Agriculture has provided the public with evidence that shows that those increases may be with us for some period of time.

There is a great deal of evidence that energy prices are high and are probably not going to decline very rapidly.

Senator PROXMIRE. Don't the employment figures that you gave us this morning—after all, while we are not at full employment level in my view, although some economists think we are close to it, the fact is that business is hiring and unemployment as a rate at least is dropping, that the number of adult males unemployed is as low as it is—all suggest that there is or will tend to be a pressure in the wage area.

In other words, there is no big substantial number of qualified

skilled workers in some areas, I would guess, in view of the present level of unemployment.

Would you agree with that?

Ms. NORWOOD. I think that capacity utilization is clearly high, in manufacturing it is somewhere over 85 or 86 percent. There may be, as we move ahead, some shortages for particular skills. There doesn't seem to be any evidence of general shortages of people yet. I think another element that is extremely important is in what part of the economy the growth occurs.

The skills, the kinds of workers that are needed in the various sectors are not quite the same.

Senator PROXMIRE. In the Bureau of Labor Statistics paper that you have—not your statement, but the press release that was distributed here, I refer to that.

Ms. NORWOOD. Yes.

Senator PROXMIRE. The last two sentences are very interesting. You say, "During the 12-month period ended in January, the Hourly Earnings Index in dollars of constant purchasing power declined 1.3 percent. * * *", and the rest is in parenthetical reference.

Ms. NORWOOD. Yes.

Senator PROXMIRE. That suggests that people are taking a real cut in their wages. In fact that is what you say.

That would suggest to me that it is going to be extremely hard to persuade labor to abide by guidelines in view of the fact that we are operating now at between 10 and 15 percent inflation on the basis of the first 2 months. Here you have the combination of labor negotiators saying:

> Now, look, inflation is going between 10 and 15 percent at the present time; we lost 1.3 percent—the Nation as a whole at least for workers as a whole lost in real income last year—and, therefore, we are going to be killed if we stand by the 7-percent guideline unless, of course, Congress passes wage insurance.

Would that seem to be a logical progression?

Ms. NORWOOD. It certainly presents a very difficult dilemma because it is clear that wages have beeen going up at roughly between 8 and 9 percent; and if you look at total compensation which includes more than wages, the rise is somewhat above 9 percent. But it is in that range. With the rates of price increase we are having, it is certainly very difficult.

Senator PROXMIRE. Now, you report 4 percent adult male unemployment.

Ms. NORWOOD. Yes.

Senator PROXMIRE. That's from age 20 on, right?

Ms. NORWOOD. Twenty up, yes, sir.

Senator PROXMIRE. Can you give us any notion of how close that may be to full employment? Isn't most of that frictional? Is there any way you can estimate that at all? I realize that this is a question that is a matter of judgment, but what is your best judgment on that?

Ms. NORWOOD. Mr. Stein says that that rate has been lower, in 1974.

Senator PROXMIRE. 1974. Early 1974?

Ms. NORWOOD. Yes.

Senator PROXMIRE. Do you have the level of white male adult unemployment?

Mr. STEIN. Yes. I will have to find it.

Ms. NORWOOD. It is 3.4 percent.

Senator PROXMIRE. Three point four percent. Now that is a very low figure, maybe it's been lower before; but that suggests among the skilled laborers, which category is dominated by the males, that we may be close to a level of where there may be scarcities.

Ms. NORWOOD. Yes.

Senator PROXMIRE. This is the alltime record, I take it, that you are reporting to us this morning on the proportion of adult population actually at work, 59.4 percent?

Ms. NORWOOD. That is so, yes.

Senator PROXMIRE. And as you indicate, business is hiring. Is there any indication on inventories, are inventories in relationship to sales low?

Ms. NORWOOD. I have not seen any figures on inventories to indicate that there are any real difficulties.

Senator PROXMIRE. All the reports I have seen in the business publications—Fortune, Business Week, and so forth—indicate that inventories are low historically in relationship to sales.

Ms. NORWOOD. That is true.

Senator PROXMIRE. Again, that is an indication that the economy is in fairly good shape. In the past when we have been in a virtual recession we have had a situation where inventories have been high, right? And if business slows down hiring and discharges people they work off their inventories and we don't have that overhang.

Ms. NORWOOD. That is right. There are no signs of that kind at all, Senator Proxmire; in fact, purchase of durable goods are up and it would appear that the view of businessmen must be that economic activity is continuing strong, and that it is worthwhile for them to continue.

Senator PROXMIRE. And the figures might have been even more impressive for the month, in view of the fact that we had very bad weather. Nobody in Washington has to be reminded of that, but throughout the East we have had very heavy snow which must have had some effect in slowing down activities, perhaps slowing down hiring in the month of Febraury.

Ms. NORWOOD. Yes.

Senator PROXMIRE. What influence, if any, did the weather have on employment and unemployment last month?

Ms. NORWOOD. It is hard to tell, Senator Proxmire. As you well know, the household survey and the establishment survey cover a particular period of the month and it is possible, always, that you can miss some of the weather effect. We don't see any evidence of weather. As you note, average weekly hours have remained fairly stable. One would expect that if there were an effect of bad weather, average weekly hours would go down, but that has not happened.

Senator PROXMIRE. I am a little surprised at that because the weather has been quite severe.

Ms. NORWOOD. Yes.

Senator PROXMIRE. In the part of the country where there is an enormous population, and heavy employment is just where it has been severe.

Ms. NORWOOD. It is possible that it could be due to the specific week of the survey.

Senator PROXMIRE. I see.

Now, in your statement, you say, "The construction industry, which had been expanding throughout most of 1978, has trimmed its work force over the past 2 months." You don't give us any figures on that. How much is that?

Ms. NORWOOD. Payroll jobs were down by about 50,000.

Senator PROXMIRE. The chairman was asking about that. What concerns me about the construction industry is that by and large it is featured with very, very high levels of unemployment.

Ms. NORWOOD. Yes.

Senator PROXMIRE. In fact, as I understand it, construction workers work, instead of 2,000 hours a year, they only average about 1,400 hours a year. So here is one area where it would seem to me that these layoffs would not be helpful in stemming inflation. As the chairman pointed out, those are the policies that the regulatory bodies are now following by making it tougher to invest in 6-month certificates.

Ms. NORWOOD. Yes.

Senator PROXMIRE. So this would aggravate the situation so that where you now—what do you have, 9 or 8 percent unemployment in the construction trades?

Ms. NORWOOD. No, sir. We have 11.5 percent.

Senator PROXMIRE. 11.5 percent; well, that is even more persuasive then; you don't solve much of a problem to push that 11.5 percent up to 13 or 15 percent.

Ms. NORWOOD. It may well be, of course, that the level of employment activity in construction may well be affected by the unusually harsh weather. It is hard to tell at this point.

Senator PROXMIRE. Now, I want to congratulate you, Madam Commissioner, on your concern and your very helpful statistics on black unemployment. This is one of the clearest and most sharply focused presentations we have had on what has happened to blacks and teenagers. I think we have neglected that too long. But there is a question here. You say that among blacks, nearly one-half of the unemployed teenagers live in a female-headed family and only 60 percent of these young people have a working relative. Moreover, you continue, the earnings of that employed relative tend to be low.

You have pointed to one option that we can take to do something about that; that is, to try to do our best to try to persuade black youngsters to stay in school so that they can graduate, and if they get the diploma, they have a better chance of getting a better job, and you say the jobless rate for graduates of high school is substantially lower than for the dropouts. What other options are available? I am not asking you to give us your opinion on what we ought to do, because that is a policy decision; but what else is there available that we can do in this area?

Ms. NORWOOD. I think it is clear that youth employment programs, special training programs for youth, particularly black youth, or those who normally do not gain skills or have much labor market experience, would be quite useful.

I also believe that attention to the whole group, that is, those female-headed families where there are children and where the mother is either working with very low income or not working at all, is extremely important because a very large proportion of those families are living in poverty.

Senator PROXMIRE. Thank you very much.

Senator BENTSEN. Thank you.

I would like to close with a comment, Commissioner, on my concern with productivity and productivity numbers.

I have listened to what's happening to our country on productivity and the fact that last year our gain in productivity was 0.8 percent, and this year it is projected at 0.4 percent, which is the lowest of any industrial nation in the world. As I understand it, productivity is measured by output per man-hour——

Ms. NORWOOD. Yes, that's correct.

Senator BENTSEN [continuing]. Maybe it's "person-hour" now. But there has been a very substantial gain in total output for the Nation. We are told that part of the reason that productivity has not increased as much as before is that we are getting people who don't have lengthy work experience coming into the labor market, people who have been housewives, or perhaps other people not labeled as part of the work force.

Now, there must be a way to get a feel for the numbers of what is happening in that regard to the overall Nation. There has to be a collective increase in productivity beyond that shown by the output per man-hour data because of the many new people added to the work force.

Well, I would like to find if there is a way we can get that kind of a readout.

In addition to that, I seriously question the productivity numbers. You have so many industries that are not included; for example, a large portion of the service industry is not included. We have heard people debate whether it is one area where productivity cannot be increased very much, but I think people are changing their minds on that question. There are ways to substantially increase productivity in the service industry and I think increases are occurring.

Another example that I am thinking of here is measurement of productivity of Government employees: in effect, you just measure the input. I also understand that the hospital industry is not even considered in the productivity measurement.

I know what is happening to costs in the hospital industry, but I also know what is happening to the great increase in services that are provided.

Now, those are concerns of mine and I would like at another time—because I don't want a top-of-the-head answer—I would like a thoughtful response to that and what can be done about it.

Ms. NORWOOD. I would be glad to provide you, in the near future, with a more thoughtful response than I might be able to give at this moment.

[The following information was subsequently supplied for the record:]

U.S. DEPARTMENT OF LABOR,
BUREAU OF LABOR STATISTICS,
Washington, D.C., May 3, 1979.

HON. LLOYD BENTSEN,
Chairman, Joint Economic Committee,
Congress of the United States,
Washington, D.C.

DEAR CHAIRMAN BENTSEN: In the unemployment hearing on March 9, you asked several questions about the adequacy of productivity measures. First, you raised questions about the treatment of service industries and government. Let me first review briefly the measures we do have and their adequacy.

At the present time, we publish quarterly aggregate productivity indexes as measured by output per hour of all persons in the entire private business sector of the economy. The only economic activities which are excluded from this aggregate measure are general government, owner-occupied housing, households and nonprofit institutions. Thus, the activities of all the goods producing sectors and most of the service sectors are included in the aggregate productivity measure.

The productivity indexes are derived from an output index and a corresponding labor input measure. The overall framework for the output measure is the National Income and Product Accounts—the GNP data. We remove the sectors I mentioned for either of two reasons: (1) the output in real terms for these sectors in the National Accounts is measured by labor input alone, and thus implies no productivity change, or (2) we have no corresponding labor input measure that can be related to the output data. For example, although rents are used to represent the value of the services produced (or output) of owner-occupied housing in GNP, there is no corresponding measure of labor input. In the cases of general government, households and non-profit institutions, the National Accounts use changes in employment to represent changes in real output. However, the output and labor input of government enterprises, such as TVA and the Postal Service, are included in our measures since actual output measures for these activities are available. Our aggregate productivity measures, therefore, do cover most activities in the economy. In employment terms, the measure represents about 80 percent of the total workforce.

As you suggested, there are, of course, problems in the measurement of productivity in specific sectors, such as services, hospitals, etc., but it is important to note that the aggregate measure for the total private business sector, unlike the measures for specific industries, is derived from the final GNP measure. The price and quantity information for the private business sector as a whole is not dependent on a build-up from the component sectors. Rather, it is derived from the expenditure side of the National Income Accounts which measures the final production for consumption, investment and international transactions. Since the measures for the separate sectors—such as construction, mining, trade, manufacturing, finance insurance, and real estate, and other services—are derived independently, the quality of the individual sector measures may be weaker than the quality of the aggregate one. It is the overall aggregate measure which shows the deceleration in productivity growth since the mid-1960's.

A panel of the National Academy of Sciences under the chairmanship of Professor Albert Rees recently completed an extensive review of productivity measures. In a preliminary report, the panel found only 5 percent of the present official productivity measures questionable because output is based at least in part on changes in inputs.

Despite the fact that the aggregate productivity measure for the private business sector is not affected by the same limitations as the measures for some individual industries, specific industry measures still are needed for pinpointing problem areas. It is for this reason that BLS publishes separate measures for the manufacturing and the nonfinancial corporate sector and for about 72 specific industries. These separate industry measures include indexes for service industries as well as manufacturing, transportation, communications and utilities industries. For example, in the service area we publish annual productivity indexes for retail food stores, hotels and motels, laundry and cleaning services, eating and drinking places, gasoline service stations and franchised new car dealers.

These industry measures show some of the variation in productivity growth within the private business sector, but it is also important, in order to fully understand the productivity problem, to have reliable measures for additional industries. We have been working to increase the industries covered and because of the special difficulties in the service area have been working very hard to develop additional measures in this area.

An understanding of productivity developments requires information based on inputs other than labor because it is important to separate out the effects of capital inputs on productivity. The development of multi-factor productivity indexes is more complex than the measurement of labor productivity alone, and the BLS is currently developing plans for a program in this area.

Your second question referred to the effect on productivity of the large influx of new workers into the labor force. Large numbers of young people have entered the labor force during this period of productivity fall-off. Their numbers have been so great that the profile of the employees has been affected. The proportions of younger people (16–24), as a percent of the workforce, increased from 19 percent in 1965 to 24 percent in 1973, and to 25 percent in 1978. To the extent that these new entrants have less work experience than the rest of the workforce, their contribution to output growth may initially be smaller. It is estimated that the changing age composition contributes about 0.2 percentage points in the deceleration in productivity growth from 1965–73. After 1973, the impact was much less and did not contribute appreciably to the subsequent productivity slowdown.

I hope this information will be helpful to you.

Sincerely yours,

JANET L. NORWOOD,
Acting Commissioner.

Ms. NORWOOD. I would just like to make a factual comment and that is that, when you talk about some of these things, Mr. Chairman, you are really referring to the overall productivity numbers which are related, of course, to the data in the national accounts and the way in which those things are measured.

I do want you to know that the Bureau of Labor Statistics does have a program for industry productivity measurement, and we have certainly done a great deal of work in many of the individual industries. We also have underway in the Bureau, and have had for several years, work on the measurement of Government productivity. That is a very new field and it is very difficult, but it is one in which we feel we can make a very real contribution.

Senator BENTSEN. Thank you very much, Commissioner.

Thank you for your testimony this morning.

Ms. NORWOOD. Thank you, Mr. Chairman.

[Whereupon, at 10:50 a.m., the committee adjourned, subject to the call of the Chair.]

EMPLOYMENT-UNEMPLOYMENT

FRIDAY, APRIL 6, 1979

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to notice, at 10 a.m., in room 6226, Dirksen Senate Office Building, Hon. William Proxmire (member of the committee) presiding.

Present: Senators Proxmire, Javits, and McClure; and Representative Mitchell.

Also present: John M. Albertine, executive director; Louis C. Krauthoff II, assistant director-director, SSEC; M. Catherine Miller, professional staff member; Mark Borchelt, administrative assistant; and Charles H. Bradford, minority counsel.

OPENING STATEMENT OF SENATOR PROXMIRE, PRESIDING

Senator PROXMIRE. The committee will come to order.

Chairman Bentsen couldn't be here this morning, unfortunately. He asked me to chair the meeting.

Of course we are delighted to have Congressman Parren Mitchell with us.

Judging by the employment picture, the economy is still steaming forward. Employment continued to grow in March by nearly 200,000 in the household survey. Over the quarter, employment gains have registered nearly a million persons, which is a phenomenal increase by any measure. Because the civilian labor force grew by less than employment, the unemployment rate remained at 5.7 percent. The employment-population ratio was unchanged at the record level of 59.4 percent in February.

Unemployment rates for adult men at 4 percent, adult women at 5.7 percent, and teenagers at 15.5 percent have really not changed significantly since last summer. Although there has been some slight progress over the year, the unemployment rate for blacks still remains extremely high, 11.2 percent, while white unemployment rate has eased down to 5 percent.

Looking at payroll employment shows even stronger employment gains this month than the household survey. Measured by the establishment survey, jobs increased by 325,000 since February. Gains occurred in manufacturing, construction, and wholesale and retail trade. The latter employment increase obviously reflected a continuing buying spree by consumers.

The average workweek, which can indicate a slowdown in the economy, still registered an hourly increase in March. Manufacturing

hours also were up as well as factory overtime. As a matter of fact, factory overtime was 3.8 hours for the fourth consecutive month. Although the hourly earnings index in February was up 8 percent over 1 year ago, it actually declined in real terms by almost 1.5 percent because of the inflation.

Yesterday the producer price indexes continued to show inflation is still raging. Over the first quarter of the year, the finished goods price index, the component most directly related to the retail sector, increased at 14.1 percent at a seasonally adjusted annual rate, the largest quarterly advance since the last quarter of 1974. If there was any good news at all, it came in the slightly slowing increases for intermediate and crude material prices. Most improvement was due to food, which suggests that the rise in food prices may not be as catastrophic next fall and next winter, perhaps, as it has been so far this winter.

We are going to be very interested in the potential effect of the Teamster strike on unemployment in this month, which, of course, was not felt at all in March, as I understand it. Possibly the United Airlines strike, in addition, although I imagine that would be much less significant, and maybe not have an overall significance.

We are also interested, of course, in the effects of the President's energy program announced last night on television, which might have a substantial effect. We would like very much to get your judgment of the effect of that as compared with the administration's official announcement; and any effects it might have on unemployment, too, would be, of course, very useful to us.

We want to hear from you first, Commissioner Norwood. But I want to mention right now at the beginning that we are very honored and happy to welcome the very distinguished economist who will join you at the table after you have finished and we have some questions for you. Mr. Levitan, who, as you know, is chairman of the National Commission on Employment and Unemployment Statistics, will discuss some of the preliminary recommendations.

We are delighted to have both of you here today.

You go right ahead, Ms. Norwood, and then Congressman Mitchell and I will ask some questions.

STATEMENT OF HON. JANET L. NORWOOD, ACTING COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY W. JOHN LAYNG, ASSISTANT COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND ROBERT L. STEIN, ASSISTANT COMMISSIONER, OFFICE OF CURRENT EMPLOYMENT ANALYSIS

Ms. NORWOOD. Thank you very much.

I am glad to have this opportunity, Senator Proxmire, to offer the Joint Economic Committee a few brief comments to supplement our Employment Situation press release, issued this morning at 9 a.m., and our Producer Price Index press release, issued yesterday morning.

Employment continued upward in March, the labor force increased, and unemployment remained unchanged. Total employment according to the household survey rose by 200,000 over the month, and the

employment-population ratio remained at its previous high of 59.4 percent. The unemployment rate was 5.7 percent in March, continuing the stability of recent months. Nearly half the unemployed were jobless less than 5 weeks, indicating considerable turnover from month to month.

The number of employees on nonfarm payrolls, as measured by the establishment survey, rose by 325,000 between February and March. Retail trade accounted for the largest increase, but significant gains were also reported in construction and durable goods manufacturing industries. Employment in the construction industry had been held down in the winter months, probably because of the unusually bad weather.

Average weekly hours of production or nonsupervisory workers in the private nonfarm economy edged up, returning to December levels. The index of aggregate weekly hours rose 0.8 percent over the month.

Total employment has grown by 3.5 million over the past year. Over the same period, the civilian labor force has expanded by 3.2 million, and unemployment has been reduced by 300,000. The number of discouraged workers—persons who want jobs but are not seeking them because they believe no work is available—totaled 725,000 in the first quarter of 1979, down by 200,000 from 1 year earlier.

Last month I reviewed with you some of the labor force problems of black teenagers. This month, I would like to discuss the situation among black adults.

Jobless rates for blacks have improved considerably over the last few years, as have the rates for whites. Despite these favorable developments, however, the ratios of black unemployment to white unemployment rates have risen to historically high levels. This increase has occurred because the jobless reductions for whites were proportionately greater than those for blacks. The current unemployment rate for black men is 8.8 percent, 2.6 times higher than that for white men, while the jobless rate for black women is 2 times that for whites.

Why have there not been stronger unemployment reductions among blacks? One answer may be related to developments in their labor force participation. The proportion of blacks who were in the labor force declined slowly but consistently throughout the post-World War II period, and then began to turn up after the 1974–75 recession, apparently as the result of expanded job opportunities.

Indeed, over the past 3 years, black workers have posted proportionately larger employment advances than white workers. But, although large numbers of blacks became employed, the number was not large enough to match the increased demand for jobs from blacks nor was it large enough to improve their jobless position relative to whites.

There are many reasons for this uneven distribution of unemployment, and much has been written about it. I would like today only to mention three important elements of data that are strikingly different for whites and for blacks.

The first one is educational attainment. The proportion of black workers who have completed 4 years of high school is increasing but it still remains lower than the proportion for whites. In 1978, 60 percent of the blacks in the labor force had at least a high school education compared to 75 percent for white workers.

A second factor relates to occupational differences. Despite a significant degree of occupational upgrading which has occurred in the late 1960's and the 1970's, black workers are still overrepresented in less-skilled jobs, which tend to be characterized by a high turnover and higher incidence of unemployment.

In 1978, for example, the proportion employed in the relatively stable professional and managerial occupations was 17 percent among black workers and 27 percent among white workers. At the lower end of the skills spectrum, 32 percent of employed blacks—nearly twice the white proportion—were working as laborers or as service workers, occupations subject to higher than average jobless rates.

The third difference is that unemployed blacks tend to be concentrated geographically to a greater extent than whites. About 60 percent of the Nation's unemployed blacks live in the central cities. Among whites, there is much greater dispersion. About 40 percent of the unemployed whites live in suburban areas and another 30 percent live outside of metropolitan areas. Not only is black unemployment concentrated in central cities in general, it is clustered in some specific cities, mainly in the Northeast and Midwest.

The March figures on employment and hours were not affected by the work stoppage in the trucking industry which did not begin until this week. To assist the Secretary in monitoring the impact of the strike and lockout in the trucking industry on the economy, the Bureau is conducting a weekly nationwide survey of the effects of the strike on employment and hours. The first survey, begun the day before yesterday, is covering the changes occurring this week, and the results will be available to the public by the end of next week.

I might add that the Bureau of Labor Statistics is extremely proud of its ability to handle the survey with this kind of timeframe.

In our survey, we are obtaining information on the reductions in the workweek, the number of employees laid off, and whether or not these reductions were caused by the trucking work stoppage. We are also seeking information on anticipated reductions for the following week.

The surveys are similar to those we conducted during the coal strike last year; however, because of the potentially nationwide impact of the trucking industry, they are much more comprehensive. We are surveying more than 3,800 establishments, all the large establishments in our current employment survey with 1,000 or more employees covering all sectors of the economy.

We plan to continue the surveys each week in order to provide current information on what is happening in the country as a whole and in major regions.

The Producer Price Index for Finisher Goods released yesterday, increased sharply for the third consecutive month. Producer finished goods advanced for the first 3 months of this year at an annual rate of 14.1 percent, the largest quarterly increase since the 16.4-percent rate for the fourth quarter of 1974.

Food and energy items continued to contribute significantly to inflation in March. Food prices at the producer level moved up 1.2 percent, as beef and veal prices increased sharply for the fourth month in a row. However, prices of some food items declined in March, particularly pork and fresh vegetables, and these declines held the March

increase in food prices somewhat below the increases in January and February. In the energy area, prices of gasoline and home heating oil continued to climb in March. Gasoline prices increased 2.9 percent and home heating oil prices were up 5.3 percent, both very substantial increases.

In spite of these large increases, however, some slight easing of price pressures did occur in March. Prices of capital equipment increased 0.6 percent, less than both February's and January's price increases. Prices of durable consumer goods behaved in a similar way. Some slight improvement in the price situation for nonfood crude materials also occurred in March.

Nevertheless, despite these improvements, on balance, it appears that a considerable amount of upward pressure still exists in the price structure. This is revealed best, perhaps, in the area of semifinished materials.

Prices of nonfood semifinished materials increased 1.1 percent in March. Over the last 6 months, prices of items in this category have increased at an annual rate of 12.2 percent. The increase is well above increases over the past few years and probably will lead to further increases in finished goods prices at both the producer and retail level over the next few months.

In summary, employment continued strong in March and more workers entered the labor force. The unemployment rate held steady at 5.7 percent, with very little change occurring among the various demographic groups. Producer finished goods prices rose 1 percent in March and for the first quarter of the year registered the largest quarterly advance since the fourth quarter of 1974. Nevertheless, the increases were in general not so widespread as previously, and the price advances for consumer goods, consumer durables, and for capital equipment, while large, were less than those in the first 2 months of the year.

A few weeks ago, the Working Party on Employment and Unemployment Statistics of the Organization for Economic Cooperation and Development, which I chair, met in Paris. The Working Party had on its agenda several items which have from time to time been raised during the hearings before this committee and I would like very briefly to report to you on that.

In addition to questions of comparability of data for evaluation of economic and social policies both within and between countries, the Working Party had on its agenda the problems of measuring of book and/or illegal workers. The discussion focused on the problems of measurement and statistical activities undertaken in each of the countries to determine the extent of undercounted workers.

A second item on the agenda of the Working Party was job vacancies. The experience of member countries in developing job vacancy data was reviewed, with particular emphasis on the reliability, cost, and effective use of the data. The consensus view was that job vacancy data could be useful to evaluate the performance of public employment placement agencies, but most countries felt they were not likely to be useful for other purposes because of problems in collection and respondent burden.

Several countries are considering legislation to make vacancy reporting by employers mandatory to employment security agencies for

use in job placement. Delegates from The Netherlands, Sweden, Australia, and Canada discussed survey-based job vacancy data and reported on the difficulties in analysis of data collected with insufficient detail. The Canadian delegate reported the discontinuation of the job vacancy survey as not cost effective. And the Australian delegate indicated that his country had found only the collection of aggregate data feasible.

This is an issue of some importance to the BLS since, as you know, we are currently testing approaches to the development of a job vacancy survey. We will review our test results with care, taking into account the experience reported by Working Party members before reporting on the feasibility and cost effectiveness of such new survey work to the Congress.

Considerable discussion also occurred on issues involving hours worked and layoffs and their treatment in the official statistics. In the future, the Working Party has agreed to consider several issues involving the social effects of unemployment. Among these issues are differences between the incidence and duration of unemployment, unemployment effects on the individual versus those on the family, and economic hardship.

Finally, the Working Party reviewed work by the OECD Secretariat attempting to set out a labor market system of accounts which would provide a systematic framework for comparing economic activity across member countries. The group urged strongly that further work in this field take account of the need for disaggregated data. The Working Party strongly opposed attempts at development of simple aggregates aimed at looking at deviations from normal trend.

Senator Proxmire, my colleagues and I will now be glad to try to answer any questions you may have.

[The prepared statement of Ms. Norwood, together with the Employment Situation press release referred to, follows:]

PREPARED STATEMENT OF HON. JANET L. NORWOOD

Mr. Chairman and members of the committee, I am glad to have this opportunity to offer the Joint Economic Committee a few brief comments to supplement our Employment Situation press release, issued this morning at 9 a.m., and our Producer Price Index press release, issued yesterday morning.

Employment continued upward in March, the labor force increased, and unemployment remained unchanged. Total employment according to the household survey rose by 200,000 over the month, and the employment-population ratio remained at its previous high of 59.4 percent. The unemployment rate was 5.7 percent in March, continuing the stability of recent months. Nearly half the unemployed were jobless less than 5 weeks, indicating considerable turnover from month to month.

The number of employees on nonfarm payrolls, as measured by the establishment survey, rose by 325,000 between February and March. Retail trade accounted for the largest increase, but significant gains were also reported in construction and durable goods manufacturing industries. Employment in the construction industry had been held down in the winter months, probably because of the unusually bad weather.

Average weekly hours of production or nonsupervisory workers in the private nonfarm economy edged up, returning to December levels. The index of aggregate weekly hours (which reflects trends both in employment and the workweek in private nonfarm industries) rose 0.8 percent over the month.

Total employment has grown by 3.5 million over the past year. Over the same period, the civilian labor force has expanded by 3.2 million, and unemployment has been reduced by 300,000. The number of discouraged workers—persons who

want jobs but are not seeking them because they believe no work is available—totaled 725,000 in the first quarter of 1979, down by 200,000 from a year earlier.

UNEMPLOYMENT AMONG BLACK AND WHITE WORKERS

Last month I reviewed with you some of the labor force problems of black teenagers. This month, I would like to discuss the situation among black adults.

Jobless rates for blacks have improved considerably over the last few years, as have the rates for whites. Despite these favorable developments, however, the ratios of black unemployment to white unemployment rates have risen to historically high levels. This increase has occurred because the jobless reductions for whites were proportionately greater than those for blacks. The current unemployment rate for black men is 8.8 percent, 2.6 times higher than that for white men, while the jobless rate for black women (9.8 percent) is 2.0 times that for whites.

Why have there not been stronger unemployment reductions among blacks? One answer may be related to developments in their labor force participation. The proportion of blacks who were in the labor force declined slowly but consistently throughout the post-World War II period, and then began to turn up after the 1974–75 recession, apparently as the result of expanded job opportunities. Indeed, over the past 3 years, black workers have posted proportionately larger employment advances than white workers. But, although large numbers of blacks became employed, the number was not large enough to match the increased demand for jobs from blacks nor was it large enough to improve their jobless position relative to whites.

There are many reasons for this uneven distribution of unemployment, and much has been written about it. I would like today only to mention three important elements of data that are strikingly different for whites and for blacks.

The first one is educational attainment. The proportion of black workers who have completed four years of high school is increasing but it still remains lower than the proportion for whites. In 1978, 60 percent of the blacks in the labor force had at least a high school education compared to 75 percent for white workers.

A second factor relates to occupational differences. Despite a significant degree of occupational upgrading which has occurred in the late sixties and the seventies, black workers are still overrepresented in less-skilled jobs, which tend to be characterized by a high turnover and higher incidence of unemployment. In 1978, for example, the proportion employed in the relatively stable professional and managerial occupations was 17 percent among black workers and 27 percent among white workers. At the lower end of the skills spectrum, 32 percent of employed blacks (nearly twice the white proportion) were working as laborers or as service workers, occupations subject to higher than average jobless rates.

The third difference is that unemployed blacks tend to be concentrated geographically to a greather extent than whites. About 60 percent of the Nation's unemployed blacks live in the central cities. Among whites, there is much greater dispersion—about 40 percent of the unemployed whites live in suburban areas and another 30 percent live outside of metropolitan areas. Not only is black unemployment concentrated in central cities in general, it is clustered in some specific cities, mainly in the northeast and midwest.

EMPLOYMENT IMPACT OF THE TRUCKING STRIKE

The March figures on employment and hours were not affected by the work stoppage in the trucking industry which did not begin until this week. To assist the Secretary in monitoring the impact of the strike and lockout in the trucking industry on the economy, the Bureau is conducting a weekly nationwide survey of the effects of the strike on employment and hours. The first survey, begun the day before yesterday, is covering the changes occurring this week, and the results will be available to the public by the end of next week.

In the survey, we are obtaining information on the reductions in the workweek, the number of employees laid off, and whether or not these reductions were caused by the trucking work stoppage. We are also seeking information on anticipated reductions for the following week.

The surveys are similar to those we conducted during the coal strike last year: however, because of the potentially nationwide impact of the trucking industry, they are much more comprehensive. We are surveying more than 3,800 establish-

ments, all the large establishments in our current employment survey with 1,000 or more employees covering all sectors of the economy.

We plan to continue the surveys each week in order to provide current information on what is happening in the country as a whole and in major regions.

PRICES

The Producer Price Index for Finished Goods released yesterday increased sharply for the third consecutive month. Producer finished goods advanced for the first three months of this year at an annual rate of 14.1 percent, the largest quarterly increase since the 16.4-percent rate for the fourth quarter of 1974.

Food and energy items continued to contribute significantly to inflation in March. Food prices at the producer level moved up 1.2 percent, as beef and veal prices increased sharply for the fourth month in a row. However, prices of some food items declined in March, particularly pork and fresh vegetables, and these declines held the March increase in food prices somewhat below the increases in January and February. In the energy area, prices of gasoline and home heating oil continued to climb in March. Gasoline prices increased 2.9 percent and home heating oil prices were up 5.3 percent, both very substantial increases.

In spite of these large increases, however, some slight easing of price pressures did occur in March. Prices of capital equipment increased 0.6 percent, less than both February's 0.8 and January's 1.0 price increases. Prices of durable consumer goods behaved in a similar way. In March, consumer durable goods advanced 0.6 percent compared with 0.7 percent in February and 1.2 percent in January. Some slight improvement in the price situation for nonfood crude materials also occurred in March.

Nevertheless, despite these improvements, on balance, it appears that a considerable amount of upward pressure still exists in the price structure. This is revealed best, perhaps, in the area of semifinished materials. Prices of nonfood semifinished materials increased 1.1 percent in March. Over the last 6 months, prices of items in this category have increased at an annual rate of 12.2 percent. The increase is well above increases over the past few years and probably will lead to further increases in finished goods prices at both the producer and retail level over the next few months.

In summary, employment continued strong in March and more workers entered the labor force. The unemployment rate held steady at 5.7 percent, with very little change occurring among the various demographic groups. Producer finished goods prices rose 1 percent in March and for the first quarter of the year registered the largest quarterly advance since the fourth quarter of 1974. Nevertheless, the increases were in general not so widespread as previously, and the price advances for consumer foods, consumer durables and for capital equipment, while large, were less than those in the first 2 months of the year.

OECD MEETING ON EMPLOYMENT AND UNEMPLOYMENT STATISTICS

A few weeks ago, the Working Party on Employment and Unemployment Statistics of the Organization for Economic Cooperation and Development (OECD) which I chair, met in Paris. The Working Party had on its agenda several items which have from time to time been raised during the hearings before this Committee. It might, therefore, be useful for me to report briefly on the meeting.

In addition to questions of comparability of data for evaluation of economic and social policies both within and between countries, the Working Party focused on:

1. Off-book and/or illegal workers

The discussion focused on the problems of measurement and statistical activities undertaken in each of the countries to determine the extent of undercounted workers. Attempts to probe employment by asking additional questions extending over periods longer than the survey week had been attempted but the results achieved were unsatisfactory and not capable of statistical verification. Further investigation of these issues will be considered at later meetings.

2. Job vacancies

The experience of member countries in developing job vacancy data was reviewed, with particular emphasis on the reliability, cost, and effective use of the data. The consensus view was that job vacancy data could be useful to evalu-

ate the performance of public employment placement agencies but were not likely to be useful for other purposes because of problems in collection and respondent burden. Several countries are considering legislation to make vacancy reporting by employers mandatory to employment security agencies for use in job placement. Delegates from the Netherlands, Sweden, Australia, and Canada discussed survey-based job vacancy data and reported on the difficulties in analysis of data collected with insufficient detail. The Canadian delegate reported the discontinuation of the job vacancy survey there as not cost effective. The Australian delegate indicated the Australians had found only the collection of aggregate data feasible.

This is an issue of some importance to the BLS, since, as you know, we are currently testing approaches to the development of a job vacancy survey. We will review our test results with care, taking into account the experience reported by Working Party members before reporting on the feasibility and cost effectiveness of such new survey work to the Congress.

3. Hours worked and layoffs

Considerable discussion occurred over the treatment of persons temporarily laid off (and of persons employed on reduced hours).

This is an issue of increasing importance in analysis and recognition of economic downturn and in evaluation of productivity trends. The Working Party recommended further work in this area and pointed out the importance of data on hours worked rather than hours paid for productivity measurement and analysis.

The Working Party also agreed to consider several issues involving the social effects of unemployment at its future meetings. Among these issues are differences between the incidence and duration of unemployment, unemployment effects on the individual vs. those on the family and economic hardship. The U.S. delegation was asked to report on progress resulting from the National Commission on Employment and Unemployment Statistics.

Finally, the Working Party reviewed work by the OECD Secretariat attempting to set out a labor market system of accounts which would provide a systematic framework for comparing economic activity across member countries. The group urged strongly that further work in this field take account of the need for disaggregated data; the Working Party strongly opposed attempts at development of simple aggregates aimed at looking at deviations from normal trend.

My colleagues and I will now be glad to answer any questions you may have.

UNEMPLOYMENT RATES BY ALTERNATIVE SEASONAL ADJUSTED METHODS

Month and year	Unadjusted rate	Standard X-11 method					X-11 ARIMA method		Range (cols. 2–8)
		Official	Concurrent	Stable	Total	Residual	Extrapolated	Concurrent	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978:									
March	6.6	6.2	6.2	6.2	6.2	6.1	6.2	6.2	0.1
April	5.8	6.1	6.1	6.0	6.0	6.1	6.1	6.1	.1
May	5.5	6.1	6.1	6.2	6.2	6.2	6.1	6.1	.1
June	6.2	5.9	5.9	5.8	5.9	5.8	5.8	5.8	.1
July	6.3	6.1	6.1	6.1	6.2	6.2	6.1	6.1	.1
August	5.8	5.9	5.9	5.9	5.9	6.0	5.9	5.9	.1
September	5.7	5.9	5.9	5.9	5.9	6.0	5.9	5.9	.1
October	5.4	5.8	5.8	5.8	5.8	5.9	5.8	5.8	.1
November	5.5	5.8	5.8	5.8	5.7	5.8	5.8	5.8	.1
December	5.6	5.9	5.9	6.0	5.8	6.0	5.9	5.9	.2
1979:									
January	6.4	5.8	5.8	5.8	5.7	5.5	5.8	5.8	.3
February	6.4	5.7	5.7	5.7	5.7	5.5	5.7	5.8	.3
March	6.1	5.7	5.7	5.8	5.7	5.6	5.7	5.8	.2

Source: U.S. Department of Labor, Bureau of Labor Statistics, Apr. 6, 1979.

NOTES TO TABLE COLUMN NUMBERS

(1) *Unadjusted rate.*—Unemployment rate not seasonally adjusted.

(2) *Official rate (standard X–11 method).*—The published seasonally adjusted rate. Each of the 3 major labor force components—agricultural employ-

ment, nonagricultural employment and unemployment data—for 4 age-sex groups (males and females under and over 20 years of age) are separately adjusted then added to derive seasonally adjusted total figures. Teenage unemployment and nonagricultural employment are adjusted by the standard X–11 method's additive option, while all other series are adjusted by the multiplicative option. Adult male unemployment is adjusted multiplicatively using the prior trend adjustment feature of the X–11. The rate is computed by adding the 12 components to a civilian labor force total, and dividing and derived civilian labor force into the unemployment total. These series are revised at the end of each year. Factors for the current year are computed at the beginning of the year for the 12 succeeding months, and published in advance.

The current "implicit" factors for the overall unemployment rate, derived by dividing the original unemployment rate by the seasonally adjusted rate for the months of 1978, are:

January	111.1	July	102.1
February	112.0	August	98.5
March	106.7	September	97.3
April	94.6	October	93.1
May	89.5	November	95.7
June	105.6	December	95.5

(3) *Concurrent (standard X–11 method).*—The procedure for computation of the official rate is followed, except that the data are re-seasonally adjusted by the standard X–11 method each month as the most recent data become available, i.e., the rate for January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are as revised to incorporate experience through December 1978.

(4) *Stable (standard X–11 method).*—The stable seasonal option of the standard X–11 method uses final seasonal factors computed as an unweighted average of all seasonal-irregular ratios for the entire span of the period, January 1967–December 1978. In essence, this procedure assumes that seasonal patterns are relatively constant from year to year. The unweighted average is updated and series revised at the end of each year.

(5) *Total (standard X–11 method).*—This is an alternative aggregation procedure, in which total unemployment and labor force levels are directly adjusted by the standard X–11 (multiplicative option) to derive the rate. The series are revised at the end of each year.

(6) *Residual (standard X–11 method).*—The labor force and employment levels are adjusted directly, with the level of unemployment derived as a residual. The rate is computed by dividing the residual unemployment level by the directly adjusted civilian labor force. The series are revised at the end of each year.

(7) *Extrapolated (X–11 ARIMA method).*—Data for the 12 component groups of the unemployment rate are estimated using ARIMA (autoregressive, integrated, moving average) models. The enlarged series is then seasonally adjusted with the X–11 program, and the rates are computed as in the official procedure. The series are revised at the end of each year. Factors for the current year are extrapolated at the beginning of the year for the 12 succeeding months.

(8) *Concurrent (X–11 ARIMA).*—The procedure for computation of the X–11 ARIMA rate is followed, except that the data are re-seasonally adjusted each month as the most recent data become available, i.e., the rate for January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are revised to reflect experience through December 1978.

Methods of adjustment.—The standard X–11 method was developed by Julius Shiskin at the Bureau of the Census. The method is described in "X–11 Variant of the Census Method II Seasonal Adjustment Program," by Julius Shiskin, Alan Young, and John Musgrave (Technical Paper No. 15, Bureau of the Census, 1967).

The X–11 ARIMA method was developed at Statistics Canada by Estela Bee Dagum and is the official method for seasonally adjusting the Canadian labor force series. A general description of the method is contained in "A Comparison and Assessment of Seasonal Adjustment Methods for Employment and Unemployment Statistics," by Estela Bee Dagum (Background Paper No. 5, U.S. National Commission on Employment and Unemployment Statistics, February 1978).

News
United States Department of Labor
Bureau of Labor Statistics Washington, D.C. 20212

Contact: John Bregger (202) 523-1944
523-1371
Kathryn Hoyle (202) 523-1913
523-1208

USDL 79-254
TRANSMISSION OF MATERIAL IN THIS RELEASE IS EMBARGOED UNTIL 9:00 A.M. (EST), FRIDAY, APRIL 6, 1979

THE EMPLOYMENT SITUATION: MARCH 1979

Employment continued to grow in March and unemployment was unchanged, the Bureau of Labor Statistics of the U.S. Department of Labor reported today. The Nation's overall unemployment rate was 5.7 percent; it has been in the 5.7 to 5.9 percent range for the past 8 months.

Total employment--as measured by the monthly survey of households--rose by about 200,000 in March to 96.8 million. Over the past year, total employment has grown by 3.5 million.

Nonfarm payroll employment--as measured by the monthly survey of establishments--rose by 325,000 over the month to 88.2 million. Nonfarm payroll jobs have advanced by 3.3 million since March 1978.

Unemployment

Both the number of unemployed, 5.9 million, and the unemployment rate, 5.7 percent, remained at or near the levels which have been in evidence since August 1978. Consistent with the overall rate, there was little or no over-the-month change in the jobless rates for adult men (4.0 percent), adult women (5.7 percent), or teenagers (15.5 percent), nor have there been any significant movements in these rates since last August.

Since March of last year, the number of jobless persons has declined by more than 300,000, and the unemployment rate has fallen by one-half of a percentage point. Over the year, the jobless rate for whites declined by one-half point to 5.0 percent, while the rate for blacks fell by 1.2 points to 11.2 percent. (See tables A-1 and A-2.)

Total Employment and the Labor Force

Total employment increased by nearly 200,000 in March, after registering strong gains in both January (450,000) and February (345,000). The employment-population ratio was unchanged at February's record level of 59.4 percent. Most of the February-to-March increase occurred among adult women. Since March 1978, employment has risen by 3.5 million; adult women have accounted for half of this gain. (See tables A-1 and A-3.)

The civilian labor force grew by 190,000 over the month to 102.7 million, 3.2 million higher than in March 1978. At 63.9 percent, the civilian labor force participation rate was unchanged from February but was one full percentage point above its year-ago level.

Discouraged Workers

Discouraged workers are persons who report that they want work but are not looking for a job because they believe they cannot find one. Because they do not meet the labor market test--that is, they are not engaged in active job search--they are classified as not in the labor force rather than unemployed. These data are published on a quarterly basis. The number of discouraged workers edged down to 725,000 during the first quarter of 1979. (See table A-10.) The discouraged worker level has declined by 350,000 since mid-1977 to its lowest level since the third quarter of 1974.

Table A. Major indicators of labor market activity, seasonally adjusted

Selected categories	Quarterly averages					Monthly data		
	1978				1979			
	I	II	III	IV	I	Jan.	Feb.	Mar.
HOUSEHOLD DATA	Thousands of persons							
Civilian labor force	99,263	100,127	100,753	101,524	102,475	102,183	102,527	102,714
Total employment	93,084	94,099	94,726	95,616	96,596	96,300	96,647	96,842
Unemployment	6,179	6,028	6,027	5,908	5,878	5,883	5,881	5,871
Not in labor force	58,741	58,478	58,482	58,398	58,095	58,170	58,012	58,105
Discouraged workers	914	851	853	760	724	N.A.	N.A.	N.A.
	Percent of labor force							
Unemployment rates:								
All workers	6.2	6.0	6.0	5.8	5.7	5.8	5.7	5.7
Adult men	4.5	4.2	4.1	4.0	4.0	4.0	4.0	4.0
Adult women	6.0	6.1	6.1	5.8	5.7	5.7	5.7	5.7
Teenagers	16.9	16.1	16.1	16.3	15.8	15.7	16.1	15.5
White	5.4	5.2	5.2	5.1	5.0	5.1	4.9	5.0
Black and other	12.4	12.1	11.7	11.5	11.4	11.2	11.9	11.2
Full-time workers	5.7	5.5	5.5	5.2	5.2	5.2	5.2	5.1
ESTABLISHMENT DATA	Thousands of jobs							
Nonfarm payroll employment	84,262	85,677	86,115	86,963	87,837p	87,524	87,832p	88,156p
Goods-producing industries	24,766	25,376	25,478	25,857	26,218p	26,111	26,201p	26,343p
Service-producing industries	59,495	60,302	60,637	61,106	61,619p	61,413	61,631p	61,813p
	Hours of work							
Average weekly hours:								
Total private nonfarm	35.7	36.0	35.8	35.9	35.8p	35.7	35.8p	35.9p
Manufacturing	40.2	40.6	40.4	40.6	40.7p	40.7	40.7p	40.8p
Manufacturing overtime	3.6	3.6	3.5	3.7	3.8p	3.8	3.8p	3.8p

p=preliminary. N.A.=not available.

Industry Payroll Employment

Nonfarm payroll employment advanced by 325,000 over the month to 88.2 million. Job gains occurred in 56 percent of the 172 industries that comprise the BLS diffusion index of private nonagricultural employment. Since last March, jobs increased by 3.3 million, or 4.0 percent. (See tables B-1 and B-6.)

In the goods-producing sector, over-the-month increases occurred in both manufacturing and construction. A gain of 70,000 in manufacturing was concentrated in electrical and electronic equipment, transportation equipment, and machinery. The construction advance, also about 70,000, followed 2 months of little or no employment growth which was probably associated with the unusually bad winter weather. Since March 1978, construction and durable goods manufacturing have had the biggest employment gains in the good-producing sector.

The over-the-month growth in service-producing jobs was led by wholesale and retail trade, which advanced by about 90,000 and accounted for nearly half of the sector's increase. All of the other major service-producing sector divisions had job increases, although growth was relatively slow in services and government. Since March 1978, trade has accounted for the largest share of the sector's employment growth.

Hours

The average workweek of production or nonsupervisory workers on private nonagricultural payrolls was 35.9 hours in March, up 0.1 hour from the February level. The manufacturing workweek also edged up 0.1 hour, after registering 40.7 hours for 4 months. Factory overtime was 3.8 hours for the fourth consecutive month. (See table B-2.)

Reflecting the over-the-month increase in both employment and the average workweek, the index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls rose 0.8 percent to 124.3 (1967=100). The index was 4.4 percent above its year-ago level. (See table B-5.)

Hourly and Weekly Earnings

Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls rose 0.8 percent from February and were 9.0 percent above the March 1978 level (seasonally adjusted). Average weekly earnings were up 1.1 percent over the month and have risen 8.7 percent from the year-earlier level.

Before adjustment for seasonality, average hourly earnings rose 3 cents to $6.02, 50 cents above March 1978. Average weekly earnings were $214.31, $2.26 above February and $16.69 higher than a year earlier. (See table B-3.)

The Hourly Earnings Index

The Hourly Earnings Index--earnings adjusted for overtime in manufacturing, seasonality, and the effects of changes in the proportion of workers in high-wage and low-wage industries--was 225.4 (1967= 100) in March, 0.8 percent higher than in February. The index was 8.2 percent above March a year ago. During the 12-month period ended in February, the Hourly Earnings Index in dollars of constant purchasing power declined 1.6 percent. (See table B-4.)

Explanatory Note

This release presents and analyzes statistics from two major surveys. Data on labor force, total employment, and unemployment (A tables) are derived from the Current Population Survey—a sample survey of households which is conducted by the Bureau of the Census for the Bureau of Labor Statistics. Beginning in September 1975, the sample was enlarged by 9,000 households in order to provide greater reliability for smaller States and thus permit the publication of annual statistics for all 50 States and the District of Columbia. These supplementary households were added to the 47,000 national household sample in January 1978; thus the sample now consists of about 56,000 households selected to represent the U.S. civilian noninstitutional population 16 years and over.

Statistics on nonagricultural payroll employment, hours, and earnings (B tables) are collected by the Bureau of Labor Statistics, in cooperation with State agencies, from payroll records of a sample of approximately 165,000 establishments. Unless otherwise indicated, data for both statistical series relate to the week containing the 12th day of the specified month.

Comparability of household and payroll employment statistics

Employment data from the household and payroll surveys differ in several basic respects. The household survey provides information on the labor force activity of the entire civilian noninstitutional population, 16 years of age and over, without duplication. Each person is classified as either employed, unemployed, or not in the labor force. The household survey counts employed persons in both agriculture and nonagricultural industries and, in addition to wage and salary workers (including private household workers), counts the self-employed, unpaid family workers, and persons "with a job but not at work" and not paid for the period absent.

The payroll survey relates only to paid wage and salary employees (regardless of age) on the payrolls of nonagricultural establishments. Persons who worked at more than one job during the survey week or otherwise appear on more than one payroll are counted more than once in the establishment survey. Such persons are counted only once in the household survey and are classified in the job at which they worked the greatest number of hours.

Unemployment

To be classified in the household survey as unemployed an individual must: (1) Have been without a job during the survey week; (2) have made specific efforts to find employment sometime during the prior 4 weeks; and (3) be presently available for work. In addition, persons on layoff and those waiting to begin a new job (within 30 days), neither of whom must meet the jobseeking requirements, are also classified as unemployed. The unemployed total includes all persons who satisfactorily meet the above criteria, regardless of their eligibility for unemployment insurance benefits or any kind of public assistance. The unemployment rate represents the unemployed as a proportion of the civilian labor force (the employed and unemployed combined).

The Bureau regularly publishes a wide variety of labor market measures. See, for example, the demographic, occupational, and industry detail in tables A-2 and A-3 of this release and the comprehensive data package in Employment and Earnings each month. A special grouping of seven unemployment measures is set forth in table A-7. Identified by the symbols U-1 through U-7, these measures represent a range of possible definitions of unemployment and of the labor force—from the most restrictive (U-1) to the most comprehensive (U-7). The official rate of unemployment appears as U-5.

Seasonal adjustment

Nearly all economic phenomena are affected to some degree by seasonal variations. These are recurring, predictable events which are repeated more or less regularly each year—changes in weather, opening and closing of schools, major holidays, industry production schedules, etc. The cumulative effects of these events are often large. For example, on average over the year, they explain about 95 percent of the month-to-month variance in the unemployment figures. Since seasonal variations tend to be large relative to the underlying cyclical trends, it is necessary to use seasonally-adjusted data to interpret short-term economic developments. At the beginning of each year, seasonal adjustment factors for unemployment and other labor force series are calculated for use during the entire year, taking into account the prior year's experience.

All seasonally-adjusted civilian labor force and unemployment rate statistics, as well as the major employment and unemployment estimates, are computed by aggregating independently adjusted series. The official unemployment rate for all civilian workers is derived by dividing the estimate for total unem-

ployment (the sum of four seasonally-adjusted age-sex components) by the civilian labor force (the sum of 12 seasonally-adjusted age-sex components).

For establishment data, the seasonally-adjusted series for all employees, production workers, average weekly hours, and average hourly earnings are adjusted by aggregating the seasonally-adjusted data from the respective component series. These data are also revised annually, often in conjunction with benchmark (comprehensive counts of employment) adjustments. (The most recent revision of seasonally-adjusted data was based on data through May 1978.)

Sampling variability

Both the household and establishment survey statistics are subject to sampling error, which should be taken into account in evaluating the levels of a series as well as changes over time. Because the household survey is based upon a probability sample, the results may differ from the figures that would be obtained if it were possible to take a complete census using the same questionnaires and procedures. The standard error is the measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the entire population is surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from a figure that would be obtained through a complete census by less than the standard error. Tables A through H in the "Explanatory Notes" of Employment and Earnings provide approximations of the standard errors for unemployment and other labor force categories. To obtain a 90-percent level of confidence, the confidence interval generally used by BLS, the errors should be multiplied by 1.6. The following examples provide an indication of the magnitude of sampling error: For a monthly change in total employment, the standard error is on the order of plus or minus 182,000. Similarly, the standard error on a change in total unemployment is approximately 115,000. The standard error on a change in the national unemployment rate is 0.12 percentage point.

Although the relatively large size of the monthly establishment survey assures a high degree of accuracy, the estimates derived from it also may differ from the figures obtained if a complete census using the same schedules and procedures were possible. However, since the estimating procedures utilize the previous month's level as the base in computing the current month's level of employment (link-relative technique), sampling and response errors may accumulate over several months. To remove this accumulated error, the employment estimates are adjusted to new benchmarks (comprehensive counts of employment), usually on an annual basis. In addition to taking account of sampling and response errors, the benchmark revision adjusts the estimates for changes in the industrial classification of individual establishments. Employment estimates are currently projected from March 1977 levels.

One measure of the reliability of the employment estimates for individual industries is the root-mean-square error (RMSE). The RMSE is the standard deviation adjusted for the bias in estimates. If the bias is small, the chances are about 68 out of 100 that an estimate from the sample would differ from its benchmark by less than the RMSE. For total nonagricultural employment, the RMSE is on the order of plus or minus 81,000. Measures of reliability (approximations of the RMSE) for establishment-survey data and actual amounts of revision due to benchmark adjustments are provided in tables J through O in the "Explanatory Notes" of Employment and Earnings.

Table A-1. Employment status of the noninstitutional population

(Numbers in thousands)

Employment status	Not seasonally adjusted			Seasonally adjusted					
	Mar. 1978	Feb. 1979	Mar. 1979	Mar. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979
TOTAL									
Total noninstitutional population[1]	160,311	162,033	162,909	160,313	162,033	162,250	162,448	162,633	162,909
Armed Forces[1]	2,122	2,094	2,090	2,122	2,117	2,108	2,094	2,094	2,090
Civilian noninstitutional population[1]	158,190	160,539	160,819	158,190	159,916	160,142	160,353	160,539	160,819
Civilian labor force	98,443	101,249	101,665	99,435	101,628	101,867	102,183	102,527	102,714
Participation rate	62.2	63.1	63.2	62.9	63.6	63.6	63.7	63.9	63.9
Employed	91,964	94,765	95,501	93,282	95,751	95,855	96,300	96,647	96,842
Employment-population ratio[2]	57.4	58.1	58.6	58.2	59.1	59.1	59.3	59.4	59.4
Agriculture	2,913	2,796	2,925	3,334	3,275	3,367	3,232	3,311	3,343
Nonagricultural industries	89,051	91,969	92,576	89,948	92,476	92,488	93,068	93,336	93,499
Unemployed	6,479	6,484	6,165	6,153	5,877	6,012	5,883	5,881	5,871
Unemployment rate	6.6	6.4	6.1	6.2	5.8	5.9	5.8	5.7	5.7
Not in labor force	59,747	59,290	59,153	58,755	58,288	58,275	58,170	58,012	58,105
Men, 20 years and over									
Total noninstitutional population[1]	68,327	69,076	69,612	68,327	69,182	69,286	69,385	69,476	69,612
Civilian noninstitutional population[1]	66,645	67,816	67,939	66,645	67,486	67,600	67,726	67,816	67,939
Civilian labor force	52,670	53,961	54,004	53,235	53,938	54,033	54,333	54,469	54,444
Participation rate	79.3	79.6	79.5	79.9	79.9	79.9	80.2	80.3	80.1
Employed	50,106	51,328	51,487	50,841	51,825	51,838	52,133	52,331	52,264
Employment-population ratio[2]	73.4	73.9	74.0	74.4	76.9	76.8	75.1	75.3	75.1
Agriculture	2,145	2,117	2,176	2,320	2,337	2,403	2,293	2,324	2,355
Nonagricultural industries	47,961	49,207	49,310	48,521	49,488	49,435	49,841	50,007	49,909
Unemployed	2,765	2,637	2,518	2,394	2,113	2,195	2,200	2,154	2,180
Unemployment rate	5.2	4.9	4.7	4.5	3.9	4.1	4.0	4.0	4.0
Not in labor force	13,774	13,855	13,934	13,410	13,548	13,567	13,393	13,331	13,495
Women, 20 years and over									
Total noninstitutional population[1]	75,196	76,440	76,589	75,196	76,110	76,227	76,337	76,440	76,589
Civilian noninstitutional population[1]	75,093	76,332	76,476	75,093	76,003	76,119	76,228	76,332	76,476
Civilian labor force	36,982	38,525	38,790	36,847	38,095	38,217	38,185	38,429	38,842
Participation rate	49.2	50.5	50.7	49.1	50.1	50.2	50.1	50.3	50.5
Employed	34,817	36,193	36,592	34,676	35,887	35,990	36,019	36,252	36,440
Employment-population ratio[2]	46.3	47.3	47.8	46.1	47.2	47.2	47.2	47.4	47.6
Agriculture	484	442	478	621	571	591	586	608	613
Nonagricultural industries	34,333	35,751	36,114	34,057	35,316	35,399	35,433	35,644	35,827
Unemployed	2,165	2,332	2,197	2,169	2,208	2,227	2,166	2,177	2,401
Unemployment rate	5.9	6.1	5.7	5.9	5.8	5.8	5.7	5.7	5.7
Not in labor force	38,111	37,807	37,686	38,246	37,906	37,902	38,043	37,903	37,834
Both sexes, 16-19 years									
Total noninstitutional population[1]	16,790	16,717	16,709	16,790	16,741	16,734	16,725	16,717	16,709
Civilian noninstitutional population[1]	16,452	16,391	16,408	16,452	16,429	16,422	16,410	16,391	16,408
Civilian labor force	8,591	8,760	8,871	9,353	9,595	9,617	9,665	9,633	9,628
Participation rate	52.2	53.5	54.1	56.9	58.4	58.6	58.9	58.8	58.7
Employed	7,041	7,248	7,422	7,763	8,039	8,027	8,148	8,064	8,138
Employment-population ratio[2]	41.9	43.4	44.4	46.2	48.0	48.0	48.7	48.2	48.7
Agriculture	284	238	271	393	367	393	354	380	375
Nonagricultural industries	6,758	7,011	7,151	7,370	7,672	7,634	7,794	7,684	7,763
Unemployed	1,549	1,515	1,449	1,590	1,556	1,590	1,517	1,569	1,490
Unemployment rate	18.0	17.3	16.3	17.0	16.2	16.5	15.7	16.1	15.5
Not in labor force	7,862	7,628	7,533	7,099	6,834	6,805	6,735	6,776	6,776
White									
Total noninstitutional population[1]	140,714	142,493	142,720	140,714	142,031	142,198	142,351	142,493	142,720
Civilian noninstitutional population[1]	138,997	140,825	141,063	138,997	140,332	140,507	140,683	140,825	141,063
Civilian labor force	86,736	89,215	89,558	87,554	89,868	89,747	90,093	90,395	90,415
Participation rate	62.4	63.4	63.5	63.0	63.8	63.9	64.0	64.2	64.1
Employed	81,737	84,237	84,770	82,902	85,013	85,125	85,543	85,941	85,938
Employment-population ratio[2]	58.1	59.1	59.4	58.9	59.9	59.9	60.1	60.3	60.2
Unemployed	4,999	4,978	4,788	4,652	4,855	4,622	4,550	4,453	4,478
Unemployment rate	5.8	5.6	5.3	5.3	5.0	5.2	5.1	4.9	5.0
Not in labor force	52,261	51,610	51,506	51,443	50,864	50,760	50,590	50,430	50,646
Black and other									
Total noninstitutional population[1]	19,599	20,140	20,189	19,599	20,002	20,051	20,097	20,140	20,189
Civilian noninstitutional population[1]	19,194	19,714	19,755	19,194	19,585	19,635	19,670	19,714	19,755
Civilian labor force	11,707	12,033	12,108	11,852	12,163	12,153	12,077	12,228	12,251
Participation rate	61.0	61.0	61.3	61.7	62.1	61.9	61.4	62.0	62.0
Employed	10,227	10,527	10,731	10,372	10,746	10,758	10,725	10,775	10,874
Employment-population ratio[2]	52.2	52.3	53.2	52.9	53.7	53.7	53.4	53.5	53.9
Unemployed	1,480	1,506	1,377	1,480	1,417	1,395	1,352	1,452	1,374
Unemployment rate	12.6	12.5	11.4	12.5	11.7	11.5	11.2	11.9	11.2
Not in labor force	7,486	7,680	7,648	7,342	7,422	7,482	7,593	7,486	7,504

[1] The population and Armed Forces figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

[2] Civilian employment as a percent of the total noninstitutional population (including Armed Forces).

Table A-2. Major unemployment indicators, seasonally adjusted

Selected categories	Number of unemployed persons (in thousands)		Unemployment rates					
	Mar. 1978	Mar. 1979	Mar. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979
CHARACTERISTICS								
Total, 16 years and over	6,153	5,871	6.2	5.8	5.9	5.8	5.7	5.7
Men, 20 years and over	2,394	2,180	4.5	3.9	4.1	4.0	4.0	4.0
Women, 20 years and over	2,169	2,201	5.9	5.8	5.8	5.7	5.7	5.7
Both sexes, 16-19 years	1,590	1,490	17.0	16.2	16.5	15.7	16.1	15.5
White, total	4,652	4,478	5.3	5.0	5.2	5.1	4.9	5.0
Men, 20 years and over	1,876	1,650	3.9	3.4	3.5	3.6	3.4	3.4
Women, 20 years and over	1,578	1,664	5.0	5.0	5.1	5.0	5.0	5.0
Both sexes, 16-19 years	1,198	1,164	14.4	13.8	14.2	13.7	13.6	13.6
Black and other, total	1,480	1,374	12.5	11.7	11.5	11.2	11.9	11.2
Men, 20 years and over	499	517	8.8	8.3	8.4	7.8	8.6	8.8
Women, 20 years and over	580	523	11.3	10.3	10.2	10.6	10.6	9.8
Both sexes, 16-19 years	401	334	38.6	36.5	34.9	32.7	35.5	31.5
Married men, spouse present	1,198	1,040	3.0	2.4	2.5	2.6	2.6	2.6
Married women, spouse present	1,199	1,227	5.2	5.5	5.6	5.3	5.1	5.1
Women who head families	415	407	8.7	7.7	7.7	7.8	8.3	8.3
Full-time workers	4,776	4,499	5.6	5.2	5.3	5.2	5.2	5.1
Part-time workers	1,394	1,391	9.8	8.9	9.2	9.1	8.6	9.2
Unemployed 15 weeks and over[1]	1,488	1,305	1.5	1.2	1.2	1.2	1.2	1.3
Labor force time lost[2]	--	--	6.7	6.2	6.2	6.2	6.2	6.1
OCCUPATION[3]								
White-collar workers	1,676	1,727	3.5	3.2	3.5	3.3	3.4	3.4
Professional and technical	377	331	2.6	2.4	3.0	2.5	2.3	2.1
Managers and administrators, except farm	229	233	2.2	2.2	1.9	2.0	1.9	2.2
Sales workers	275	260	4.9	3.1	3.6	3.8	4.3	4.1
Clerical workers	797	903	4.6	4.5	4.6	4.6	4.7	4.9
Blue-collar workers	2,410	2,263	7.2	6.4	6.8	6.4	6.4	6.6
Craft and kindred workers	641	615	5.0	4.0	4.7	4.5	4.7	4.6
Operatives, except transport	957	917	8.2	7.5	7.7	7.6	7.6	7.7
Transport equipment operatives	196	195	5.3	4.2	5.3	4.9	5.0	5.2
Nonfarm laborers	616	535	11.7	11.6	11.0	9.4	9.3	10.3
Service workers	1,059	1,092	7.7	7.4	7.7	7.9	7.1	7.2
Farm workers	131	92	4.5	3.2	3.4	2.8	3.6	3.2
INDUSTRY[3]								
Nonagricultural private wage and salary workers[4]	4,415	4,190	6.1	5.6	5.8	5.7	5.6	5.5
Construction	523	519	11.0	10.8	12.1	10.6	11.5	10.2
Manufacturing	1,223	1,186	5.6	5.1	5.0	5.0	4.8	5.2
Durable goods	649	608	5.0	4.6	4.4	4.4	4.1	4.3
Nondurable goods	574	578	6.4	5.8	6.0	5.9	5.8	6.4
Transportation and public utilities	202	234	3.9	3.3	3.3	3.5	3.0	4.0
Wholesale and retail trade	1,335	1,172	7.3	6.5	6.8	6.5	6.6	6.2
Finance and service industries	1,097	1,060	5.2	5.0	5.1	5.1	4.8	4.7
Government workers	593	693	3.8	3.9	4.0	4.0	3.7	4.1
Agricultural wage and salary workers	156	119	9.7	7.9	7.7	7.2	8.9	7.7

[1] Unemployment rate calculated as a percent of civilian labor force.

[2] Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

[3] Unemployment by occupation includes all experienced unemployed persons, whereas that by industry covers only unemployed wage and salary workers.

[4] Includes mining, not shown separately.

Table A-3. Selected employment indicators

[In thousands]

Selected categories	Not seasonally adjusted		Seasonally adjusted					
	Mar. 1978	Mar. 1979	Mar. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979
CHARACTERISTICS								
Total employed, 16 years and over	91,964	95,501	93,282	95,751	95,855	96,300	96,647	96,842
Men	53,866	55,347	55,042	56,096	56,072	56,449	56,549	56,559
Women	38,098	40,153	38,240	39,655	39,783	39,851	40,098	40,283
Married men, spouse present	34,003	38,820	38,459	38,944	39,039	39,202	39,374	39,291
Married women, spouse present	21,674	22,700	21,672	22,274	22,297	22,410	22,632	22,700
OCCUPATION								
White-collar workers	46,915	49,296	46,763	47,888	48,040	48,275	49,001	49,133
Professional and technical	14,327	15,339	14,087	14,297	14,629	14,743	15,034	15,083
Managers and administrators, except farm	10,118	10,386	10,136	10,030	10,217	10,322	10,414	10,407
Sales workers	5,865	5,994	5,939	6,192	6,092	6,055	6,141	6,067
Clerical workers	16,604	17,577	16,601	17,369	17,102	17,154	17,412	17,577
Blue-collar workers	29,988	30,954	31,085	32,202	31,962	32,491	32,331	32,085
Craft and kindred workers	11,780	12,385	12,161	12,646	12,610	12,882	12,932	12,808
Operatives, except transport	10,529	10,839	10,761	11,177	10,887	11,047	10,953	11,060
Transport equipment operatives	3,481	3,515	3,529	3,640	3,640	3,678	3,618	3,565
Nonfarm laborers	4,198	4,215	4,634	4,739	4,825	4,924	4,829	4,652
Service workers	12,605	12,790	12,666	13,009	13,007	12,777	12,770	12,856
Farm workers	2,456	2,461	2,799	2,739	2,826	2,759	2,742	2,803
MAJOR INDUSTRY AND CLASS OF WORKER								
Agriculture:								
Wage and salary workers	1,206	1,225	1,398	1,424	1,478	1,365	1,429	1,419
Self-employed workers	1,434	1,469	1,558	1,563	1,625	1,547	1,550	1,595
Unpaid family workers	273	231	382	293	318	293	348	324
Nonagricultural industries:								
Wage and salary workers	82,160	85,563	83,150	85,578	85,579	86,169	86,346	86,592
Government	15,472	15,483	15,213	15,373	15,360	15,217	15,293	15,224
Private industries	66,708	70,080	67,937	70,205	70,219	70,952	71,053	71,368
Private households	1,253	1,209	1,300	1,335	1,316	1,295	1,334	1,255
Other industries	65,455	68,871	66,637	68,870	68,903	69,707	69,719	70,112
Self-employed workers	6,305	6,499	6,389	6,370	6,515	6,529	6,632	6,585
Unpaid family workers	566	514	488	455	460	478	456	483
PERSONS AT WORK[1]								
Nonagricultural industries	85,175	88,727	84,434	86,653	87,046	87,490	87,592	87,955
Full-time schedules	69,348	72,478	69,495	71,394	71,787	72,209	72,250	72,623
Part time for economic reasons	3,116	3,111	3,194	3,131	3,058	3,159	3,147	3,179
Usually work full time	1,254	1,251	1,238	1,279	1,209	1,208	1,205	1,235
Usually work part time	1,862	1,860	1,946	1,852	1,849	1,951	1,942	1,944
Part time for noneconomic reasons	12,711	13,138	11,755	12,128	12,201	12,122	12,195	12,156

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

Table A-4. Duration of unemployment

[Numbers in thousands]

Weeks of unemployment	Not seasonally adjusted		Seasonally adjusted					
	Mar. 1978	Mar. 1979	Mar. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979
DURATION								
Less than 5 weeks	2,552	2,517	2,789	2,833	2,876	2,713	2,743	2,751
5 to 14 weeks	2,143	2,083	1,909	1,774	1,979	1,877	1,870	1,857
15 weeks and over	1,784	1,565	1,488	1,196	1,208	1,251	1,260	1,305
15 to 26 weeks	1,014	931	787	685	726	728	712	729
27 weeks and over	771	633	701	511	482	523	548	576
Average (mean) duration, in weeks	13.4	12.7	12.4	11.0	10.7	11.2	11.3	11.7
Median duration, in weeks	7.9	7.4	6.2	5.4	5.6	5.9	6.3	5.8
PERCENT DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	39.4	40.8	45.1	48.8	47.4	46.4	46.7	46.5
5 to 14 weeks	33.1	33.8	30.9	30.6	32.6	32.1	31.8	31.4
15 weeks and over	27.5	25.4	24.1	20.6	19.9	21.4	21.4	22.1
15 to 26 weeks	15.6	15.1	12.7	11.8	12.0	12.5	12.1	12.3
27 weeks and over	11.9	10.3	11.3	8.8	7.9	9.0	9.3	9.7

Table A-5. Reasons for unemployment

[Numbers in thousands]

Reasons	Not seasonally adjusted		Seasonally adjusted					
	Mar. 1978	Mar. 1979	Mar. 1979	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979
NUMBER OF UNEMPLOYED								
Lost last job	2,989	2,848	2,562	2,372	2,442	2,454	2,481	2,440
On layoff	848	986	691	746	715	753	792	789
Other job losers	2,129	1,862	1,871	1,626	1,727	1,701	1,689	1,652
Left last job	851	855	858	825	871	927	829	863
Reentered labor force	1,833	1,745	1,878	1,754	1,937	1,692	1,756	1,786
Seeking first job	807	717	912	872	826	823	874	822
PERCENT OF DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	46.1	46.2	41.3	40.7	40.2	41.6	41.8	41.3
On layoff	13.3	16.0	11.1	12.8	11.8	12.8	13.3	13.3
Other job losers	32.8	30.2	30.1	27.9	28.4	28.9	28.4	27.9
Job leavers	13.1	13.9	13.8	14.2	14.3	15.7	14.0	14.6
Reentrants	28.3	28.3	30.2	30.1	31.9	28.7	29.6	30.2
New entrants	12.5	11.6	14.7	15.0	13.6	14.0	14.7	13.9
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE								
Job losers	3.1	2.8	2.6	2.3	2.4	2.4	2.4	2.4
Job leavers	.9	.8	.9	.8	.9	.9	.8	.8
Reentrants	1.9	1.7	1.9	1.7	1.9	1.7	1.7	1.7
New entrants	.6	.7	.9	.9	.8	.8	.9	.8

Table A-6. Unemployment by sex and age, seasonally adjusted

Sex and age	Number of unemployed persons (in thousands)		Unemployment rates					
	Mar. 1978	Mar. 1979	Mar. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979
Total, 16 years and over	6,153	5,871	6.2	5.8	5.9	5.8	5.7	5.7
16 to 19 years	1,590	1,490	17.0	16.2	16.5	15.7	16.1	15.5
16 to 17 years	790	775	20.1	19.3	20.2	18.4	18.4	18.9
18 to 19 years	810	724	15.0	14.0	13.8	13.6	14.6	13.1
20 to 24 years	1,501	1,355	10.2	9.0	9.3	8.6	8.6	8.8
25 years and over	3,044	3,008	4.0	3.8	3.9	3.9	3.9	3.9
25 to 54 years	2,611	2,578	4.3	4.0	4.2	4.2	4.1	4.1
55 years and over	459	462	3.2	2.9	2.9	2.9	3.0	3.1
Men, 18 years and over	3,235	3,001	5.6	5.0	5.1	5.1	5.0	5.0
18 to 19 years	841	821	16.7	15.9	16.7	16.1	16.5	16.0
18 to 17 years	485	443	20.2	20.1	20.7	19.1	19.2	19.9
18 to 19 years	402	383	14.1	12.7	13.6	13.5	14.7	13.2
20 to 24 years	800	687	10.0	8.5	8.9	8.4	8.2	8.4
25 years and over	1,582	1,481	3.5	3.1	3.2	3.2	3.2	3.2
25 to 54 years	1,304	1,235	3.6	3.2	3.4	3.3	3.2	3.3
55 years and over	283	253	3.2	2.5	2.6	2.8	2.8	2.8
Women, 16 years and over	2,918	2,870	7.1	6.9	6.9	6.7	6.7	6.7
16 to 19 years	749	669	17.4	16.5	16.3	15.3	15.7	14.8
16 to 17 years	345	332	19.9	18.3	19.6	17.5	17.4	17.8
18 to 19 years	408	341	15.9	15.5	14.1	13.6	14.4	13.0
20 to 24 years	701	668	10.4	9.6	9.7	8.9	9.1	9.4
25 years and over	1,462	1,527	4.9	4.9	5.0	5.0	4.9	4.8
25 to 54 years	1,307	1,340	5.3	5.2	5.3	5.4	5.3	5.2
55 years and over	176	208	3.2	3.5	3.3	3.1	3.3	3.6

Table A-7. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

[Percent]

Measures	Quarterly averages					Monthly data		
	1978				1979	1979		
	I	II	III	IV	I	Jan.	Feb.	Mar.
U-1—Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.6	1.4	1.3	1.2	1.2	1.2	1.2	1.3
U-2—Job losers as a percent of the civilian labor force	2.6	2.5	2.8	2.4	2.4	2.4	2.4	2.4
U-3—Unemployed persons 25 years and over as a percent of the civilian labor force 25 years and over	4.1	4.1	4.1	3.9	3.9	3.9	3.9	3.9
U-4—Unemployed full-time jobseekers as a percent of the full-time labor force	5.7	5.5	5.5	5.2	5.2	5.2	5.2	5.1
U-5—Total unemployed as a percent of the civilian labor force (official measure)	6.2	6.0	6.0	5.8	5.7	5.8	5.7	5.7
U-6—Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons as a percent of the civilian labor force less ½ of the part-time labor force	7.7	7.6	7.5	7.2	7.2	7.2	7.2	7.1
U-7—Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons plus discouraged workers as a percent of the civilian labor force plus discouraged workers less ½ of the part-time labor force	8.6	8.4	8.4	8.0	7.9	N.A.	N.A.	N.A.

N.A.= not available.

Table A-8. Employment status of the noninstitutional population by race and Hispanic origin, not seasonally adjusted

[Number in thousands]

Employment status	Total		White		Black[1]		Hispanic origin[2]	
	Mar. 1978	Mar. 1979	Mar. 1978	Mar. 1979	Mar. 1978	Mar. 1979	Mar. 1978	Mar. 1979
TOTAL								
Civilian noninstitutional population	158,190	160,819	138,997	141,063	16,522	16,914	7,600	7,831
Civilian labor force	98,443	101,665	86,736	89,558	9,997	10,269	4,706	4,938
Percent of population	62.2	63.2	62.4	63.5	60.5	60.7	61.9	63.1
Employment	91,964	95,501	81,737	84,770	8,692	9,004	4,253	4,549
Agriculture	2,913	2,925	2,661	2,640	199	236	195	188
Nonagricultural industries	89,051	92,576	79,076	82,131	8,493	8,768	4,059	4,361
Unemployment	6,479	6,165	4,999	4,788	1,305	1,266	453	390
Unemployment rate	6.6	6.1	5.8	5.3	13.1	12.3	9.6	7.9
Not in labor force	59,747	59,153	52,261	51,506	6,525	6,645	2,894	2,892

[1] Data relate to black workers only. According to the 1970 Census, they comprised about 89 percent of the "black and other" population group.

[2] Data on persons of Hispanic origin are tabulated separately, without regard to race, which means that they are also included in the data for white and black workers. At the time of the 1970 Census, approximately 98 percent of their population was white.

Table A-9. Employment status of male Vietnam-era veterans and nonveterans by age, not seasonally adjusted

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
			Total		Employed		Unemployed			
							Number		Percent of labor force	
	Mar. 1978	Mar. 1979	Mar. 1978	Mar. 1979	Mar. 1978	Mar. 1979	Mar. 1978	Mar. 1979	Mar. 1978	Mar. 1979
VETERANS[1]										
Total, 20 years and over	8,270	8,492	7,808	8,105	7,372	7,647	436	458	5.6	5.7
20 to 24 years	813	610	713	573	606	478	107	95	15.0	16.6
25 to 29 years	6,769	7,072	6,524	6,836	6,222	6,497	302	339	4.6	5.0
25 to 29 years	2,499	2,061	2,365	1,973	2,232	1,822	133	151	5.6	7.7
30 to 34 years	3,260	3,569	3,179	3,455	3,042	3,312	137	143	4.3	4.1
35 to 39 years	1,010	1,442	980	1,408	948	1,363	32	45	3.3	3.2
40 years and over	688	810	571	696	544	672	27	24	4.7	3.4
NONVETERANS[2]										
Total, 25 to 39 years	13,886	14,312	12,722	13,552	12,079	12,966	643	586	5.1	4.3
25 to 29 years	5,910	6,511	5,528	6,110	5,176	5,777	352	333	6.4	5.5
30 to 34 years	3,990	4,104	3,806	3,905	3,644	3,768	162	141	4.3	3.6
35 to 39 years	3,546	3,697	3,388	3,537	3,259	3,425	129	112	3.8	3.2

[1] Vietnam-era veterans are those who served between August 5, 1964 and May 7, 1975.

[2] Nonveterans are males who have never served in the Armed Forces. Published data are limited to those 25-39 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

NOTE: Seasonally-adjusted data are no longer being provided because the changing age composition of the Vietnam-era veterans' population distorts the ability to identify seasonality in the series.

Table A-10. Persons not in the labor force by selected characteristics, quarterly averages

(In thousands)

Characteristics	Not seasonally adjusted		Seasonally adjusted					
	I	I	1977	1978				1979
	1978	1979	IV	I	II	III	IV	I
Total not in labor force	59,898	59,310	58,861	58,761	58,478	58,482	58,398	58,095
Do not want a job now	54,301	53,901	53,108	53,747	53,252	52,745	53,110	53,492
Want a job now	5,597	5,399	5,561	5,428	5,260	5,486	5,239	5,262
Discouraged workers	921	724	970	914	851	853	760	724
Job-market factors[1]	635	484	630	635	541	620	485	483
Personal factors[2]	286	239	340	279	310	232	275	241
Men	341	285	369	348	305	291	275	298
Women	580	438	661	570	546	561	485	430
White	681	540	712	647	584	591	531	513
Black and other	239	184	253	273	253	277	232	210

[1] Job market factors include "could not find job" and "thinks no job available."

[2] Personal factors include "employers think too young or old," "lacks education or training," and "other personal handicap."

Table A-11. Employment status of the noninstitutional population for ten large States

(Numbers in thousands)

State and employment status	Not seasonally adjusted [2]			Seasonally adjusted					
	Mar. 1978	Feb. 1979	Mar. 1979	Mar. 1978	Nov. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979
California									
Civilian noninstitutional population [1]	16,219	16,361	16,623	16,219	16,477	16,506	16,536	16,561	16,623
Civilian labor force	10,570	10,826	10,768	10,585	10,718	10,760	10,824	10,863	10,783
Employed	9,723	10,064	10,048	9,760	10,065	10,084	10,137	10,149	10,084
Unemployed	847	762	721	825	653	676	687	714	699
Unemployment rate	8.0	7.0	6.7	7.8	6.1	6.3	6.3	6.6	6.5
Florida									
Civilian noninstitutional population [1]	6,465	6,636	6,654	6,465	6,585	6,602	6,620	6,636	6,654
Civilian labor force	3,589	3,781	3,850	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,364	3,560	3,627	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	225	221	223	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	6.3	5.8	5.8	(2)	(2)	(2)	(2)	(2)	(2)
Illinois									
Civilian noninstitutional population [1]	8,188	8,252	8,259	8,188	8,236	8,243	8,247	8,252	8,259
Civilian labor force	5,223	5,224	5,249	5,247	5,430	5,382	5,317	5,260	5,273
Employed	4,874	4,929	4,934	4,912	5,120	5,045	5,051	4,996	4,973
Unemployed	350	296	315	335	310	337	266	264	300
Unemployment rate	6.7	5.7	6.0	6.4	5.7	6.3	5.0	5.0	5.7
Massachusetts									
Civilian noninstitutional population [1]	4,316	4,357	4,361	4,316	4,346	4,350	4,354	4,357	4,361
Civilian labor force	2,795	2,918	2,914	(2)	(2)	(2)	(2)	(2)	(2)
Employed	2,623	2,725	2,720	2,657	2,675	2,676	2,727	2,775	2,754
Unemployed	172	193	194	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	6.2	6.6	6.7	(2)	(2)	(2)	(2)	(2)	(2)
Michigan									
Civilian noninstitutional population [1]	6,620	6,701	6,708	6,620	6,679	6,687	6,694	6,701	6,708
Civilian labor force	4,137	4,288	4,290	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,840	3,937	3,949	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	297	352	341	249	299	304	329	305	293
Unemployment rate	7.2	8.2	8.0	(2)	(2)	(2)	(2)	(2)	(2)
New Jersey									
Civilian noninstitutional population [1]	5,443	5,492	5,497	5,443	5,477	5,482	5,488	5,492	5,497
Civilian labor force	3,264	3,546	3,500	3,293	3,563	3,592	3,569	3,583	3,529
Employed	3,034	3,250	3,249	3,079	3,330	3,326	3,327	3,312	3,294
Unemployed	230	296	251	214	233	266	242	271	235
Unemployment rate	7.1	8.3	7.2	6.5	6.5	7.4	6.8	7.6	6.7
New York									
Civilian noninstitutional population [1]	13,267	13,278	13,282	13,267	13,268	13,273	13,276	13,278	13,282
Civilian labor force	7,761	7,951	8,011	7,752	7,965	8,056	8,094	8,030	8,022
Employed	7,103	7,366	7,393	7,145	7,405	7,512	7,531	7,498	7,435
Unemployed	639	586	618	607	560	544	563	532	587
Unemployment rate	8.2	7.4	7.7	7.8	7.0	6.8	7.0	6.6	7.3
Ohio									
Civilian noninstitutional population [1]	7,841	7,917	7,924	7,841	7,900	7,906	7,912	7,917	7,924
Civilian labor force	4,757	4,983	5,006	4,813	5,109	5,118	5,065	5,056	5,063
Employed	4,464	4,658	4,704	4,571	4,835	4,851	4,760	4,773	4,811
Unemployed	292	326	302	242	274	267	305	283	252
Unemployment rate	6.1	6.5	6.0	5.0	5.4	5.2	6.0	5.6	5.0
Pennsylvania									
Civilian noninstitutional population [1]	8,838	8,885	8,891	8,838	8,870	8,875	8,881	8,885	8,891
Civilian labor force	5,225	5,240	5,277	5,243	5,350	5,357	5,333	5,275	5,295
Employed	4,811	4,845	4,865	4,879	4,960	4,998	4,994	4,947	4,932
Unemployed	414	394	412	364	390	359	339	328	363
Unemployment rate	7.9	7.5	7.8	6.9	7.3	6.7	6.4	6.2	6.9
Texas									
Civilian noninstitutional population [1]	9,129	9,325	9,367	9,129	9,272	9,291	9,309	9,325	9,367
Civilian labor force	5,941	6,154	6,119	5,967	6,094	6,116	6,150	6,220	6,146
Employed	5,661	5,878	5,889	5,680	5,797	5,813	5,913	5,963	5,908
Unemployed	280	276	230	287	297	303	237	257	238
Unemployment rate	4.7	4.5	3.8	4.8	4.9	5.0	3.9	4.1	3.9

[1] The population figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and the seasonally adjusted columns.

[2] These are the official Bureau of Labor Statistics' estimates used in the administration of Federal fund allocation programs.

[2] Seasonally-adjusted data are not presented for this series, because the variations that are due to seasonal influences cannot be separated with sufficient precision from those which stem from the trend-cycle and irregular components of the original time series.

ESTABLISHMENT DATA

Table B-1. Employees on nonagricultural payrolls by industry

In thousands

Industry	Not seasonally adjusted				Seasonally adjusted					
	MAR. 1978	JAN. 1979	FEB. p 1979	MAR. p 1979	MAR. 1978	NOV. 1978	DEC. 1978	JAN. 1979	FEB. p 1979	MAR. p 1979
TOTAL	83,697	86,295	86,503	87,243	84,726	87,036	87,281	87,524	87,832	88,156
GOODS-PRODUCING	24,356	25,426	25,408	25,725	24,927	25,872	26,030	26,111	26,201	26,343
MINING	860	892	894	901	848	903	904	905	916	917
CONSTRUCTION	3,675	3,934	3,892	4,093	3,999	4,368	4,397	4,381	4,383	4,454
MANUFACTURING	19,995	20,602	20,622	20,731	20,230	20,601	20,729	20,825	20,902	20,972
Production workers	14,355	14,793	14,805	14,911	14,567	14,803	14,919	14,996	15,062	15,127
DURABLE GOODS	11,913	12,465	12,491	12,576	12,041	12,410	12,491	12,562	12,656	12,712
Production workers	8,544	8,949	8,964	9,042	8,661	8,909	8,985	9,034	9,114	9,162
Lumber and wood products	727.5	736.5	735.5	742.9	752	759	765	770	773	767
Furniture and fixtures	486.9	492.0	491.2	487.0	491	487	491	494	494	491
Stone, clay, and glass products	671.5	674.2	676.3	691.9	692	701	707	706	708	713
Primary metal industries	1,179.6	1,236.4	1,236.7	1,247.1	1,189	1,235	1,240	1,241	1,250	1,257
Fabricated metal products	1,624.3	1,692.8	1,692.4	1,697.1	1,639	1,684	1,697	1,706	1,715	1,713
Machinery, except electrical	2,294.0	2,454.1	2,471.8	2,481.7	2,289	2,404	2,425	2,447	2,464	2,477
Electric and electronic equipment	1,931.7	2,023.1	2,031.9	2,043.6	1,951	2,001	2,011	2,027	2,042	2,064
Transportation equipment	1,916.3	2,030.6	2,028.3	2,051.9	1,944	2,010	2,021	2,031	2,065	2,081
Instruments and related products	636.1	680.0	683.8	686.7	639	671	676	681	687	690
Miscellaneous manufacturing	444.9	440.9	443.5	448.0	455	454	458	459	458	459
NONDURABLE GOODS	8,082	8,137	8,131	8,153	8,189	8,191	8,238	8,263	8,246	8,260
Production workers	5,811	5,844	5,841	5,869	5,906	5,894	5,934	5,962	5,948	5,965
Food and kindred products	1,644.0	1,634.2	1,634.8	1,641.5	1,718	1,693	1,711	1,716	1,708	1,715
Tobacco manufacturers	70.6	73.1	69.9	68.3	76	71	72	72	71	73
Textile mill products	912.2	906.9	906.8	904.4	916	910	910	912	911	908
Apparel and other textile products	1,323.3	1,291.9	1,297.9	1,303.9	1,319	1,307	1,312	1,318	1,303	1,300
Paper and allied products	695.9	701.2	706.9	711.1	703	700	705	708	714	718
Printing and publishing	1,167.3	1,207.3	1,210.7	1,215.4	1,171	1,194	1,203	1,209	1,213	1,219
Chemicals and allied products	1,077.1	1,090.3	1,091.2	1,095.2	1,081	1,093	1,097	1,099	1,099	1,100
Petroleum and coal products	203.5	204.7	206.2	208.1	209	210	211	211	212	214
Rubber and misc. plastics products	736.7	764.8	768.5	767.1	744	761	771	773	775	775
Leather and leather products	251.6	240.2	238.2	237.6	252	248	246	245	240	238
SERVICE-PRODUCING	59,541	60,867	61,095	61,518	59,799	61,164	61,251	61,413	61,631	61,813
TRANSPORTATION AND PUBLIC UTILITIES	4,759	4,919	4,939	4,971	4,817	4,947	4,967	4,974	5,004	5,031
WHOLESALE AND RETAIL TRADE	18,801	19,619	19,429	19,600	19,169	19,701	19,697	19,817	19,910	19,999
WHOLESALE TRADE	4,815	4,985	4,983	5,016	4,854	4,968	4,995	5,020	5,033	5,056
RETAIL TRADE	13,986	14,634	14,446	14,584	14,315	14,733	14,702	14,797	14,877	14,943
FINANCE, INSURANCE, AND REAL ESTATE	4,577	4,771	4,785	4,815	4,605	4,774	4,789	4,809	4,828	4,844
SERVICES	15,676	16,358	16,230	16,345	15,773	16,270	16,327	16,352	16,427	16,444
GOVERNMENT	15,726	15,500	15,712	15,787	15,435	15,472	15,471	15,461	15,462	15,495
FEDERAL	2,725	2,730	2,738	2,741	2,739	2,757	2,734	2,755	2,755	2,755
STATE AND LOCAL	13,001	12,770	12,974	13,046	12,696	12,715	12,737	12,706	12,707	12,740

p=preliminary.

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	[illegible] 1978	JAN. 1979	FEB. 1979 p	MAR. 1979 p	NOV. 1978	DEC. 1978	JAN. 1979	FEB. 1979 p	MAR. 1979 p
TOTAL PRIVATE	35.0	35.2	35.4	35.5	35.0	35.8	35.9	35.7	35.8	35.9
MINING	42.4	42.4	42.4	42.5	42.7	43.3	43.7	43.4	42.7	42.9
CONSTRUCTION	36.3	34.5	35.4	36.7	36.9	36.8	37.2	35.9	36.4	37.3
MANUFACTURING	40.4	40.1	40.3	40.6	40.6	40.7	40.7	40.7	40.7	40.8
Overtime hours	3.5	3.5	3.5	3.6	3.7	3.7	3.8	3.8	3.8	3.8
DURABLE GOODS	41.1	40.9	41.1	41.4	41.3	41.4	41.5	41.5	41.5	41.5
Overtime hours	3.7	3.8	3.9	3.9	3.9	4.0	4.1	4.2	4.2	4.1
Lumber and wood products	39.5	38.5	39.1	39.3	39.9	40.1	40.1	40.0	39.6	39.7
Furniture and fixtures	39.7	38.2	38.1	39.0	40.1	39.2	39.2	39.2	38.8	39.4
Stone, clay, and glass products	41.3	40.5	40.7	42.0	41.8	41.9	42.0	41.4	41.6	42.5
Primary metal industries	41.5	42.1	42.1	42.3	41.5	42.3	42.2	42.4	42.3	42.3
Fabricated metal products	41.1	40.8	40.9	41.2	41.3	41.1	41.4	41.2	41.4	41.4
Machinery, except electrical	42.3	42.1	42.5	42.6	42.3	42.2	42.5	42.2	42.6	42.6
Electric and electronic equipment	40.4	40.3	40.4	40.5	40.6	40.4	40.5	40.7	40.8	40.7
Transportation equipment	41.9	41.9	42.0	42.1	42.1	42.9	42.9	43.0	42.7	42.3
Instruments and related products	41.2	40.6	40.9	41.3	41.3	40.9	40.9	41.1	41.1	41.4
Miscellaneous manufacturing	39.0	38.6	38.7	39.1	39.0	38.8	38.8	39.1	39.1	39.1
NONDURABLE GOODS	39.4	39.0	39.0	39.4	39.7	39.6	39.5	39.6	39.4	39.6
Overtime hours	3.1	3.0	3.0	3.1	3.3	3.2	3.3	3.2	3.2	3.3
Food and kindred products	39.5	39.5	39.2	39.7	40.0	40.0	40.0	40.1	39.7	40.2
Tobacco manufacturers	38.5	36.1	36.2	37.3	38.9	37.4	38.1	36.7	36.7	37.7
Textile mill products	40.6	39.9	39.8	40.2	40.4	40.4	40.4	40.9	40.0	40.4
Apparel and other textile products	35.9	34.6	35.1	35.4	36.0	35.7	35.6	35.3	35.6	35.5
Paper and allied products	43.1	42.0	42.3	42.6	43.4	43.1	42.7	42.9	42.9	42.9
Printing and publishing	37.9	37.1	37.5	37.9	38.0	37.9	37.6	37.7	37.9	38.0
Chemicals and allied products	42.0	41.7	41.6	42.0	42.1	42.1	41.8	42.0	41.9	42.1
Petroleum and coal products	43.0	42.8	42.6	42.8	43.3	44.2	43.7	43.4	43.5	43.1
Rubber and misc. plastics products	40.7	41.1	41.3	41.4	40.7	41.1	41.2	41.5	41.6	41.4
Leather and leather products	36.8	36.3	35.8	36.0	37.1	36.8	36.7	37.0	36.2	36.3
TRANSPORTATION AND PUBLIC UTILITIES	40.1	39.6	39.9	40.1	40.4	40.0	40.0	40.2	40.0	40.4
WHOLESALE AND RETAIL TRADE	32.7	31.8	32.1	32.3	33.0	32.4	32.9	32.4	32.5	32.6
WHOLESALE TRADE	38.7	38.4	38.4	38.7	38.9	38.8	38.9	38.7	38.7	38.9
RETAIL TRADE	30.8	29.9	30.1	30.3	31.2	30.9	31.0	30.5	30.6	30.7
FINANCE, INSURANCE, AND REAL ESTATE	36.3	36.4	36.4	36.0	36.3	36.3	36.3	36.3	36.3	36.0
SERVICES	32.8	32.4	32.5	32.6	33.0	32.7	32.5	32.6	32.7	32.8

[1] Data relate to production workers in mining and manufacturing; to construction workers in construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls.

p = preliminary.

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers[1] on private nonagricultural payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	MAR. 1978	JAN. 1979	FEB.p 1979	MAR.p 1979	MAR. 1978	JAN. 1979	FEB.p 1979	MAR.p 1979
TOTAL PRIVATE	$5.52	$5.96	$5.93	$6.02	$197.02	$209.79	$212.[illegible]	[illegible]
Seasonally adjusted	5.54	5.98	5.99	6.04	199.44	210.77	214.44	[illegible]
MINING	6.95	8.20	8.24	8.19	301.63	347.88	349.35	[illegible]
CONSTRUCTION	8.49	8.98	9.00	8.99	334.92	310.07	316.80	329.93
MANUFACTURING	6.00	6.49	6.52	6.56	242.40	260.25	262.76	266.34
DURABLE GOODS	6.40	6.91	6.95	7.01	263.04	282.82	285.85	290.21
Lumber and wood products	5.40	5.79	5.82	5.86	213.30	222.92	227.56	230.30
Furniture and fixtures	4.56	4.87	4.93	4.98	181.03	186.03	187.83	194.22
Stone, clay, and glass products	6.08	6.56	6.57	6.61	251.10	263.68	267.60	277.62
Primary metal industries	7.94	8.62	8.75	8.86	329.51	364.98	368.38	374.79
Fabricated metal products	6.19	6.81	6.86	6.72	254.41	269.89	272.39	276.86
Machinery, except electrical	6.81	7.09	7.15	7.19	279.60	294.98	303.84	305.24
Electric and electronic equipment	5.68	6.12	6.15	6.18	229.47	240.86	248.46	250.29
Transportation equipment	7.69	8.34	8.33	8.40	326.21	349.45	349.86	353.64
Instruments and related products	5.60	5.94	6.00	6.04	230.72	242.79	245.40	249.45
Miscellaneous manufacturing	4.60	4.93	4.96	4.97	179.40	190.30	191.95	194.13
NONDURABLE GOODS	5.39	5.81	5.82	5.85	212.37	220.59	226.94	230.44
Food and kindred products	5.69	6.09	6.10	6.13	224.76	240.56	239.17	241.70
Tobacco manufacturers	6.30	6.47	6.53	6.75	242.55	233.57	240.01	251.74
Textile mill products	4.17	4.52	4.50	4.51	159.10	140.35	174.10	191.30
Apparel and other textile products	3.89	4.17	4.16	4.14	139.65	144.28	146.02	147.47
Paper and allied products	6.32	6.80	6.86	6.87	272.39	293.68	299.33	302.45
Printing and publishing	6.37	6.69	6.69	6.73	241.42	245.20	250.84	255.37
Chemicals and allied products	6.83	7.32	7.33	7.36	288.46	305.24	304.93	309.12
Petroleum and coal products	8.50	9.99	9.08	9.10	365.50	384.77	388.62	393.99
Rubber and misc. plastics products	5.32	5.80	5.82	5.84	219.52	235.38	240.37	242.14
Leather and leather products	3.96	4.13	4.16	4.16	142.05	149.92	144.93	149.76
TRANSPORTATION AND PUBLIC UTILITIES	7.34	7.83	7.83	7.83	294.93	314.07	312.42	313.98
WHOLESALE AND RETAIL TRADE	4.58	4.96	4.97	4.98	149.11	156.22	156.54	156.45
WHOLESALE TRADE	5.69	6.19	6.20	6.23	229.20	237.76	238.08	241.10
RETAIL TRADE	4.11	4.47	4.48	4.47	126.59	133.65	134.85	135.44
FINANCE, INSURANCE, AND REAL ESTATE	4.76	5.13	5.19	5.18	172.79	186.73	188.92	186.48
SERVICES	4.91	5.24	5.27	5.28	181.05	194.78	171.28	172.13

[1] See footnote 1, table B-[illegible]

p=preliminary

ESTABLISHMENT DATA

Table B-4. Hourly earnings index for production or nonsupervisory workers[1] on private nonagricultural payrolls by industry division, seasonally adjusted

(1967=100)

Industry	MAR. 1978	OCT. 1978	NOV. 1978	DEC. 1978	JAN. 1979	FEB. P 1979	MAR. P 1979	Percent change from— MAR. 1978–MAR. 1979	Percent change from— FEB. 1979–MAR. 1979
TOTAL PRIVATE NONFARM:									
Current dollars	208.3	218.0	219.0	220.7	222.6	223.7	225.4	8.2	0.8
Constant (1967) dollars	109.5	108.7	108.5	108.6	108.5	107.7	N.A.	(2)	(3)
MINING	222.5	249.7	249.8	249.1	251.7	254.3	253.8	14.1	-.2
CONSTRUCTION	203.0	210.6	211.4	212.5	213.4	216.1	217.3	7.0	.5
MANUFACTURING	211.0	220.8	222.4	224.1	225.4	227.1	229.1	8.6	.9
TRANSPORTATION AND PUBLIC UTILITIES	225.6	234.0	234.7	234.3	238.9	239.0	240.6	6.7	.7
WHOLESALE AND RETAIL TRADE	201.5	211.6	213.0	214.6	217.8	218.4	220.0	9.2	.7
FINANCE, INSURANCE, AND REAL ESTATE	188.9	199.8	200.8	202.0	202.3	203.9	205.2	8.6	.6
SERVICES	208.7	217.5	217.8	218.9	221.7	222.0	223.9	7.3	.8

[1] See footnote 1, table B-2.

[2] PERCENT CHANGE WAS -1.4 FROM FEBRUARY 1978 TO FEBRUARY 1979, THE LATEST MONTH AVAILABLE.

[3] PERCENT CHANGE WAS -.7 FROM JANUARY 1979 TO FEBRUARY 1979, THE LATEST MONTH AVAILABLE.

N.A. not available.

P=preliminary.

NOTE: All series are in current dollars except where indicated. The index excludes effects of two types of changes that are unrelated to underlying wage-rate developments: Fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes in the proportion of workers in high-wage and low-wage industries.

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers[1] on private nonagricultural payrolls by industry, seasonally adjusted

(1967=100)

Industry division and group	1978										1979		
	MAR.	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.P	MAR.P
TOTAL PRIVATE	119.1	120.4	120.9	120.6	120.6	120.4	120.8	121.6	122.4	122.9	122.6	123.3	124.3
GOODS-PRODUCING	103.6	106.0	105.1	106.0	106.1	105.4	105.5	106.5	106.0	109.1	108.7	109.2	110.5
MINING	111.3	144.2	143.1	144.0	143.5	145.7	144.4	145.2	146.0	149.1	149.2	148.3	148.1
CONSTRUCTION	111.5	116.8	117.1	122.8	124.2	122.8	122.6	123.8	124.3	126.5	120.6	122.3	127.7
MANUFACTURING	102.0	102.5	101.6	101.7	101.6	101.0	101.2	102.1	103.7	104.6	105.1	105.5	106.2
DURABLE GOODS	103.9	104.2	103.5	103.8	104.0	103.5	103.9	105.5	107.1	108.3	108.6	109.8	110.5
Lumber and wood products	114.3	115.0	111.8	113.6	112.3	110.7	111.6	113.9	115.3	116.2	116.6	115.8	115.7
Furniture and fixtures	112.5	112.5	110.3	109.5	108.3	106.4	106.2	107.5	108.6	109.4	110.0	108.9	109.4
Stone, clay, and glass products	111.0	112.7	111.4	112.4	111.1	109.8	110.1	110.8	112.0	113.3	111.5	112.4	116.1
Primary metal industries	92.8	92.9	93.9	94.1	94.4	95.3	95.5	96.9	99.0	99.2	99.7	100.4	100.8
Fabricated metal products	102.9	103.5	103.3	102.4	102.8	101.8	102.0	103.1	105.2	106.8	106.6	108.1	107.9
Machinery, except electrical	109.4	110.1	109.5	111.3	112.1	110.8	111.5	113.6	114.5	116.9	117.0	119.2	120.0
Electric and electronic equipment	101.2	100.4	99.8	99.8	101.8	101.1	100.1	101.4	102.6	103.4	105.1	106.3	107.7
Transportation equipment	97.2	97.5	96.6	95.8	96.2	96.1	97.7	100.4	102.8	103.8	104.7	105.8	105.5
Instruments and related products	120.5	121.7	120.6	122.4	123.6	123.9	123.9	124.5	125.7	126.9	128.8	130.8	132.5
Miscellaneous manufacturing industry	102.0	102.6	101.5	101.4	99.8	100.6	100.3	100.9	101.8	101.5	102.9	102.6	102.6
NONDURABLE GOODS	99.2	99.9	98.9	98.7	98.1	97.2	97.2	97.2	98.8	99.1	99.9	99.3	100.0
Food and kindred products	96.2	96.4	94.6	94.0	93.6	91.4	91.3	92.2	94.6	96.1	97.0	95.3	97.3
Tobacco manufacturers	82.0	80.2	81.5	84.1	78.6	71.5	74.5	73.5	73.5	77.6	74.8	73.5	78.1
Textile mill products	93.7	93.4	92.6	91.8	91.5	91.2	91.8	91.6	92.4	92.2	93.6	91.3	91.8
Apparel and other textile products	91.6	93.2	91.9	91.4	90.1	90.1	90.1	88.7	90.0	89.8	89.6	89.4	88.9
Paper and allied products	101.6	102.4	101.9	101.9	101.9	99.2	99.0	98.2	100.5	100.7	101.7	102.9	103.6
Printing and publishing	99.3	99.1	98.2	98.6	99.1	98.3	97.8	98.5	100.3	100.1	101.1	102.3	103.4
Chemicals and allied products	106.0	106.5	106.9	106.9	106.6	106.0	106.0	106.2	107.2	107.0	107.8	107.8	108.4
Petroleum and coal products	121.3	122.1	118.4	120.4	121.2	123.2	122.7	123.0	124.7	124.2	123.4	124.5	126.0
Rubber and misc. plastics products	144.5	147.3	146.6	147.0	146.2	145.4	145.0	147.0	149.6	152.3	153.4	154.8	153.8
Leather and leather products	69.1	71.3	70.4	70.1	67.1	69.1	69.6	68.8	67.3	66.5	66.7	64.0	63.6
SERVICE-PRODUCING	129.8	130.5	130.5	130.7	130.7	130.8	131.4	132.0	132.3	132.5	132.3	133.1	134.0
TRANSPORTATION AND PUBLIC UTILITIES	109.1	108.7	109.0	109.4	106.5	107.7	108.2	109.9	110.2	110.3	111.2	111.3	113.0
WHOLESALE AND RETAIL TRADE	125.9	126.6	126.8	126.8	127.4	127.2	127.5	128.2	128.4	128.7	127.6	128.6	129.5
WHOLESALE TRADE	125.3	126.0	125.2	126.1	125.7	126.1	127.1	127.4	127.6	128.5	128.4	128.9	130.2
RETAIL TRADE	126.1	126.8	127.3	127.0	128.0	127.7	127.7	128.5	128.7	128.8	127.3	128.4	129.3
FINANCE, INSURANCE, AND REAL ESTATE	135.4	137.5	136.2	137.9	139.0	139.2	139.6	140.5	140.6	140.9	141.7	142.0	141.4
SERVICES	143.3	144.1	143.6	143.9	144.1	144.1	145.1	145.0	145.6	145.6	145.8	146.9	147.6

[1] See footnote 1, table B-2.

P=preliminary.

Table B-6. Indexes of diffusion: Percent of industries in which employment[1] increased

Year and month	Over 1-month span	Over 3-month span	Over 6-month span	Over 12-month span
1976				
January	78.2	85.8	87.2	85.2
February	72.4	84.9	85.8	84.0
March	69.5	81.4	82.0	83.2
April	70.1	72.4	75.6	80.4
May	58.1	67.2	68.3	80.9
June	57.8	65.1	71.2	79.9
July	58.4	57.8	63.1	78.2
August	49.1	66.0	65.1	77.6
September	64.8	53.8	66.3	80.2
October	47.1	65.1	73.3	80.8
November	67.4	64.2	78.8	81.8
December	66.6	81.4	81.4	82.8
1977				
January	76.2	83.1	88.1	78.2
February	66.0	86.3	87.8	80.2
March	74.7	81.1	85.2	80.2
April	68.0	79.4	79.4	84.6
May	64.8	76.2	75.9	84.2
June	71.2	68.0	72.1	83.1
July	59.3	63.4	69.8	82.6
August	51.7	58.7	74.1	80.7
September	60.8	62.5	72.1	78.9
October	60.5	73.8	77.9	81.1
November	73.8	75.3	82.0	81.1
December	72.1	79.7	83.1	80.8
1978				
January	69.8	80.2	85.5	80.7
February	70.3	80.2	79.9	79.1
March	70.1	75.9	77.9	77.6
April	62.6	67.4	68.9	78.2
May	56.4	63.7	67.7	80.3
June	67.2	62.5	59.6	82.6
July	54.9	57.0	61.3	82.8
August	51.7	49.7	74.4	77.3p
September	57.6	58.7	77.9	74.7p
October	70.6	75.6	83.1	
November	80.2	85.5	85.5p	
December	79.7	87.2	83.1p	
1979				
January	74.1	80.2p		
February	66.0p	73.3p		
March	56.1p			
April				
May				
June				
July				
August				
September				
October				
November				
December				

[1] Number of employees, seasonally adjusted, on payrolls of 172 private nonagricultural industries.
p = preliminary.

Senator PROXMIRE. Thank you, Commissioner Norwood. First we want to congratulate you on your nomination to be—you are Acting Commissioner now?

Ms. NORWOOD. Yes.

Senator PROXMIRE. But you have been nominated by the President, as I understand it, to be the Commissioner of the Bureau of Labor Statistics.

Ms. NORWOOD. Thank you.

Senator PROXMIRE. On the basis of your excellent reports to us and our knowledge of your fine background and all the work you have done, I think you are an outstanding selection and I congratulate the President on having nominated you.

Ms. NORWOOD. I appreciate that, sir.

Senator PROXMIRE. In the last few months we have asked you to tell us whether you see any evidence that the price guidelines are working yet. Now, in this month's dismal increase in producer prices, and the January increase and the February increase, can you see any light at the end of our inflationary tunnel?

Ms. NORWOOD. I think, Senator, one has to look at the different sectors of the economy in order to try to evaluate what is going on. Clearly, there are parts of the economy that are outside the possibility of control by any guidelines. OPEC oil increases would be one place. I think some of the food price increases are another.

If we look at capital equipment and consumer durables, it is too early, I think, to say that there is an effect from the guidelines. But there does seem to be some slight glimmering of moderation.

Senator PROXMIRE. Isn't that glimmering pretty thin?

Ms. NORWOOD. Yes.

Senator PROXMIRE. When you look at the release you issued yesterday, on the producer prices, you see the finished consumer goods excluding food, for January, 1.2 was the total; February, 0.9; March, 1.1. In other words it is worse in March than it was in February and almost as bad as that disastrous January month.

What is the glimmering of optimism in that statistic?

Ms. NORWOOD. Well, I think that in that particular statistic, there certainly is not much glimmering of optimism. However, I think it is important to understand that some of that comes from energy prices.

Senator PROXMIRE. That is going to continue to be——

Ms. NORWOOD. Yes.

What I was trying to do, Senator, was to distinguish between those things which are affected by the guidelines and those things which are not.

I think also we have to take into account the timing of the guidelines and the timing of price increases. The change now is each quarter. The quarter begins on April 1.

Senator PROXMIRE. I thought they modified the regulations so that you had to ration your price increases in such a way you couldn't do it in the beginning of the quarter. That is what Mr. Barry Bosworth—told us before the Banking Committee—intended to do anyway.

Ms. NORWOOD. In the past, companies were able to take price increases twice a year. Now they have to spread them out over the whole year. So they can't take the increase all up front at the beginning in January, for example, for 6 months.

Now they can only take quarterly rises. That is, that 6-month price increase has to be spread over two quarters.

The point I was making is that the data we have reflect the period at the end of the first quarter. We have to wait to see what happens in April to see whether there is another surge in the rate of price increase.

Senator PROXMIRE. We have an entire quarter here. And the entire quarter here is bad and the third month of the quarter is as bad as the other months.

What also seems to be a negative factor, at least to me, but others may disagree, is they tell us that the wage insurance program is probably dead. If it is dead, then it would seem that the prospects of trying to hold down wage increases is certainly a lot less.

If that is the case, it would seem that the outlook could be pretty serious.

How about the so-called Consumer Watch, or Consumer Witch, whatever it is? What is your opinion on the expansion of the anti-inflation program to include nationwide price watching by consumers? Can they tell if the companies' price increases are in line with the guidelines?

Ms. NORWOOD. I think it is not possible to measure the effect of this aspect of the anti-inflation program. But I think any kind of activity to increase public sensitivity to price changes is useful.

Senator PROXMIRE. Is this the way to do it? People are pretty sensitive about it.

Ms. NORWOOD. Well, that is not for me to say.

I do think that one of the big problems we have is inflationary expectations. I think the more people are aware of the need to resist higher prices in their ordinary consumption habits, the better off we will be. Exactly how to do that is a question that I am sure a lot of people are thinking about.

Senator PROXMIRE. You anticipated a question I was going to ask you, about the monitoring of the Teamster strike. It is very reassuring to know that you are going to follow it this closely and as I understand it, make reports on it and let us know the effects.

It is not clear by your prepared statement whether you will tell us where the supply disruptions are occurring, what commodities are most sensitive to this, and what shortages we might expect to develop.

Ms. NORWOOD. As I'm sure you are aware, there is an effort going on in the administration to coordinate all of the information relating to the Teamsters strike. Secretary Marshall has taken the leadership in that area. Other departments in the Government will be providing information on supplies.

Our job is to provide information on employment and hours. And that's what we are doing.

Senator PROXMIRE. Administration advisers have been reported in the media that decontrolling oil prices will add a maximum of one-half of 1 percentage point quarterly to consumer prices. I assume that is the estimate based on the President's decontrol agenda. Is that a BLS estimate?

Ms. NORWOOD. No, sir.

Senator PROXMIRE. Do you think those figures are reasonable?

Ms. NORWOOD. I don't really know. I understand that they were developed by the Council of Economic Advisers and I have a great deal of admiration for some of the work that they do.

We did not have any involvement in that work and did not learn about any of this until last night when we saw it on TV. All we know about it is what we read in the newspapers. So we are not prepared to discuss how the estimates were developed.

Senator PROXMIRE. Well, you are the real experts in this area. You have a degree of professionalism and objectivity I think we would find credible, at least I would. I think it would be helpful if you would try to analyze that, give us the basis of your analysis, as to what effect on inflation the President's proposal will have.

Will you do that for us?

Ms. NORWOOD. Yes; we certainly will be glad to.

Senator PROXMIRE. Last week Bethlehem Steel, Reynolds Metal, and Alcan Aluminum announced increases. These increases came too late to be counted in the March index. When will we see their effects, in April?

Mr. LAYNG. Some will be in April and some in May. I think the United States Steel increase is effective April 1. That will be reflected next.

I'm not sure of the timing of the other two. Sometimes they announce them at one point, then there is considerable delay until they go into effect.

Senator PROXMIRE. When you put these all together can you give us some notion of how much an increase you expect for intermediate materials as a result and how much in the overall index?

Mr. LAYNG. We would have to work that out. As I recall, steel is somewhere between 3 and 4 percent. We would have to work that through to the total intermediate index. We can do that for you.

Senator PROXMIRE. You can't give us a ballpark estimate now? Prices for industrial raw material such as copper and steel scrap have been going forward. How much is due to hoarding and how much to business expansion; do you have any idea?

Ms. NORWOOD. We really have no information on that, Senator Proxmire. We do know that there seems to be a lot of discussion about the tightness of those markets, and that there seems to be some shortages of supply in other parts of the world as well as in this country.

Senator PROXMIRE. The reason I'm asking about this is that one of the good elements in our economic outlook has been the relatively low level of inventories in respect to sales. I just wondered if this activity could lead to overstocking of inventories such as occurred in 1974 and to a later unloading of inventories, while people are laid off.

Ms. NORWOOD. I really don't have anything to add to that. I do think that one of the reasons for the apparent increases in inventories is, again, the price increases that are occurring and the feeling that it is perhaps better to buy now than later because prices are lower.

Mr. Layng has done the calculation that you asked for.

Mr. LAYNG. This is a very rough pencil calculation.

The direct effect of finished steel mill products of, say, a 5-percent increase, would be roughly a quarter of a point to maybe a half point at the most on the index for intermediate materials.

In order to get an estimate of the finished sector for total impact——

Senator PROXMIRE. I want to be sure I understand what you are saying. My time is up and I don't want to impose on Senator McClure but I want to be sure I understand what you are saying.

You are saying that a 5-percent increase in the price of steel across the board——

Mr. LAYNG. Finished steel mill products.

Senator PROXMIRE [continuing]. Would have a one-half of 1 percent increase on the overall producer——

Mr. LAYNG. A quarter to one-half percent on semifinished materials. To get the impact on the finished goods of course we have to know what the impact of steel mill products will be on things like automobiles, refrigerators—that is, the indirect effect as well as the direct.

Senator PROXMIRE. If you knew the indirect effect it would be more, obviously?

Mr. LAYNG. It would be more.

Senator PROXMIRE. Thank you.

Senator McClure.

Senator MCCLURE. Thank you.

Just to follow through for a moment in regard to the possibility of people who are using raw materials in the manufacturing process, concerning whether or not they are buying ahead. There may be those who are engaged in speculative hoarding. There are others who stockpile materials against the possibility of shortage.

With the possibility of a Teamster strike looming, is it likely that some of the consumers of basic raw materials may have stockpiled against the interruption in supply, and if that is possible, do you have any evidence that that occurred?

Ms. NORWOOD. We do not have any evidence of it, but I'm sure prudent businessmen would have taken into account the possible strike.

Senator MCCLURE. It wouldn't surprise you——

Ms. NORWOOD. No.

Senator MCCLURE [continuing]. If they had maybe bought a little more heavily than they ordinarily would, anticipating the interruption in supply?

Ms. NORWOOD. It would surprise me if they had not.

Senator MCCLURE. As a matter of fact, while there may be a tendency to buy ahead in an inflationary period, that tendency is somewhat offset by the high capital cost, or high interest rates that accompany any such stockpiling or increasing inventory. They pay a price to do it which may more than offset the inflationary expectation.

Ms. NORWOOD. Yes; I think that is certainly true. Of course, one needs to look at the real rate of interest.

Senator MCCLURE. And the real rate of interest is low right now, although try to convince that to somebody who is paying it. But the gap between the rate of inflation and rate of interest is very small on the whole. But nevertheless that is a real capital cost to somebody who is going to stockpile inventory.

I'd like to return for a moment to the question of black teenage unemployment. It fell 4 percentage points from the February figure.

Do you believe that employment for black teenagers increased that rapidly, or is that simply a temporary aberration in the figures?

Ms. NORWOOD. Senator, I think that it is important to understand that the accuracy and reliability of the data for any subgroup of the population may be not as great as for the aggregate group. This change for black teenagers is barely within the range of statistical significance.

That does not mean that it hasn't happened. But I think what it does mean is that we need to wait another month or two to see whether this is a continuing development.

Senator McCLURE. You indicated that the numerical data that you gather are just barely within the range of statistical accuracy.

Ms. NORWOOD. Yes; the specific change we are discussing is of marginal statistical significance.

Senator McCLURE. Have you undertaken an effort to broaden or increase the acquisition of information so that that can be accepted with more confidence?

Ms. NORWOOD. I pointed out that this is a relatively small group. We are talking about 300,000 unemployed black teenagers.

You are certainly correct that this is an issue which does need to be looked at. I am sure that Mr. Levitan may have something to say about that later.

In addition, I would like to say that we feel that this is the kind of thing that needs to be looked at as we redesign the current population survey in order to reflect the results of the 1980 census. So we do have that in mind.

Senator McCLURE. But you are not going to do it until after the 1980 census figures are in?

Ms. NORWOOD. We have no plans to do it before then.

Senator McCLURE. The 1980 census figures won't be in really——

Ms. NORWOOD. It will be several years.

Senator McCLURE [continuing]. Until 1981 or 1982.

Ms. NORWOOD. Yes, sir.

Senator McCLURE. So you are not going to revise your system with respect to this subgroup for the next 2, 3, and possibly 4 years.

That disturbs me just a little because certainly there is no problem to which the Congress is responding more sensitively. Whether they do it adequately or not may be argued, but certainly Congress is most sensitive to this question of black teenage unemployment.

If, as a matter of fact, statistical data is not good enough to give us confidence, then maybe we ought to try to do something about that in the shorter run.

What would it require of you? Is it the kind of thing which would require massive reshuffling or substantial reshuffling, or an increase in the workload in your agency?

Ms. NORWOOD. Senator, one of the interesting problems that we have to cope with continually is that as people become concerned about economic and social conditions, they begin to recognize that there are sometimes problems with the data. At that time, it becomes much easier to explain and to have people understand that data frequently costs money and that there are problems of burden on respondents and so on.

This is an issue that the Bureau has been very much aware of and very concerned about. We have been attempting to expand the current population survey in order to improve the local area unemployment estimates. As we have done that, of course, we have brought along with that expansion increasing reliability for the component groups who are a part of these local areas.

But, in order to greatly increase statistical reliability for a single group, we would have to expand the samples for that particular group

of the population. That requires oversampling. There are a lot of elements of oversampling that need to be taken into account. And while we would favor it, certainly, it has to be looked at in terms of the trade-off between increased reliability and the burden on respondents, the technical difficulties, the cost.

And right now, we have an added problem in that the Bureau of the Census is very much involved in the steps necessary to initiate the 1980 census. The 1980 census is very important to the current population survey, quite apart from all of the other things that the census data are used for. And we have to be certain that we do not do anything which could bring about a deterioration in the quality of those data. So there are a lot of elements here.

Senator McCLURE. I realize that but I am not really sure what you told me, other than the fact that it is tough to do.

Ms. NORWOOD. It is tough, it is expensive and there is a problem of workload on the Census Bureau.

Senator McCLURE. At the same time, however, there is a growing realization in the Congress, and I think maybe a consensus now developing here, that unemployment is not a single problem. Unemployment statistics broadly gaged tell us one thing. When there are high rates of unemployment, certain kinds of economic stimuli have been in vogue in the Congress. But those stimuli have very little effect upon subgroups of the unemployed, particularly teenage blacks or other minorities in the inner-city.

So there is a growing realization in the Congress that our approach to the question of unemployment must be focused upon the structurally unemployed rather than the gross statistic.

It would seem to me that as Congress focused on that, and I think that is a correct focus, that we also need better information, so we can determine what it is with which we are working. Associated with that question is another one which Congress is taking more interest in because it is a growing problem, and that is that of the illegal alien worker.

Oftentimes they occupy the same areas, they compete in the same job markets. We have almost no information concerning that.

The only thing I have seen from the administration is, gosh, we can't handle that so let's legalize everything that's happened up to now and then we will worry about what happens later. This is not a real answer.

Again, we need better information on a statistical basis. And these two major problems, they are major problems that confront us, are the areas where we don't have good information; where we need better information. It doesn't seem to me that we can wait 4 years to start developing better information.

I guess that is one way of solving teenage unemployment, is to allow them to grow out of it.

I think my time is up, Senator Proxmire.

Senator PROXMIRE. Congressman Mitchell.

Representative MITCHELL. Thank you.

I need some help in developing a theory that I have. As you know, Bill Miller over at the Federal Reserve System has been cutting back on the money supply in his effort to fight inflation. Last month and the month before that he came precariously close to zero money growth.

Would you assume that the reduction of the money supply, as has been done in order to fight inflation, will have a negative impact on employment?

Ms. NORWOOD. As you are certainly very much aware, Congressman, there are a lot of different attitudes and views about the effect of the money supply. It is generally believed that declines in the money supply have some downward effect on employment and prices.

Representative MITCHELL. If that is true, given the three criteria that you have used in your testimony this morning—curiously enough I am interested in black unemployment—the three criteria, education, occupation, and concentration, if the decline in the money supply is true, then will not this negatively impact on employment opportunities for blacks?

Ms. NORWOOD. I don't think that one can know about that. I think in a way this gets back to what Senator McClure was saying, about there being structural problems which need to have structural solutions. And, therefore, we need to have better data for these various areas so that policymakers can make their determination.

I don't know that one can go directly from an aggregate money supply figure to the structural problem for black teenagers.

Representative MITCHELL. No, no, I wasn't limiting it to just black teenagers. I said black unemployment. I'm not really dealing with structural unemployment. Let's try it another way.

The budget deficit for last year was $37.4 billion. Our House Budget Committee acting with its usual sagacity has come up with a budget deficit of $24.8 billion. That means in 1 year there is going to be a reduction of $12.6 billion that is going to be taken out of circulation, really, and that $12.6 billion obviously had a stimulative effect on the economy.

In the absence of that $12.6 billion, do you think that there will be a negative or positive impact on black unemployment in general?

Ms. NORWOOD. I think that it is probably correct to say that a real reduction in employment always tends to be associated with a reduction in employment of blacks. If the budget deficit should result in an overall employment decline, I would expect that the employment of blacks also would decline.

Representative MITCHELL. Fine. Then we have two variables to deal with. One is the money supply which has come precariously close to zero growth, and that is going to impact negatively on black unemployment, and on black employment.

The other is the budget, the sudden withdrawal of $12.6 billion is the other variable we are dealing with, which in my mind, certainly will not facilitate increased employment for blacks.

Then we have another variable. The President's budget itself before the House got to it, which had a deficit of $28 or $29 billion, and in which the President indicated that because of the way his budget is structured, we would expect that there would be an increase in unemployment somewhere between 1 and 1.5 percent.

Given your three variables you testified on this morning, education, occupation, and concentration, would it be illogical to assume that the bulk of that increase in unemployment will fall upon blacks?

Ms. NORWOOD. Clearly, any problems in the economy fall disproportionately on disadvantaged people, whether they be black or Hispanic——

Representative MITCHELL. May I interrupt you a moment?

That is why I wanted to use your three variables. You are negating your own testimony. You said in your prepared statement that because of differences in education, because of differences in occupational skills, because of the concentration of blacks in certain areas, this is in part the reason for the disparity between the black employment rate and the white employment rate.

Ms. NORWOOD. But what I said in my prepared statement very carefully was that there are a lot of reasons for the uneven distribution of unemployment, and that all that I was doing was picking out some things, in looking at our data, that were striking examples of differences.

I would certainly emphasize that there are a lot of other explanations which we have not covered and which are not necessarily visible in our data.

To get back to the point that you were making, however, I think it is important to recognize that there are some programs which are built into the President's program which would be triggered and which would have some effect on increased unemployment should it occur.

Representative MITCHELL. Well, thank you, Commissioner.

Senator Proxmire, my colleagues, on this beautiful spring day with glorious sunshine out there, I'm in my usual state of depression about black unemployment. And I have reluctantly come to the conclusion that at three levels of government, we are pursuing a policy which is going to keep black unemployment high at a minimum, or increase it.

It really seems to involve a national policy which has the effect, whether intentional or not, of keeping blacks unemployed. This involves the behavior of the money supply and the sudden reduction of stimulus as accounted by the dramatic reduction in the budget deficit, and the President's own budget in which he anticipates an increase in unemployment.

Maybe you could cheer me up later on. But I must confess to a deep depression this morning, and I must also confess, Commissioner, that you have not in any way relieved that sense of depression.

Thank you very much, Senator Proxmire.

Senator PROXMIRE. Senator Javits.

Senator JAVITS. Thank you.

Ms. Norwood, I had in mind asking you how you tie into the work of the Human Resources Committee, which is engaged in trying to deal with this problem of structural unemployment, by a number of things we are encouraging.

We are encouraging work-study at the high school level to keep young people in school. We have got credit appropriation for that.

We have got a big program to induce private enterprise to train the youth whom you and Mr. Mitchell have just been discussing, because we take very seriously the need to give them the same position at the starting line that others have.

Representative MITCHELL. Will the Senator yield for just a moment?

Senator JAVITS. Of course.

Representative MITCHELL. I ask you to yield only to clarify something.

We are terribly interested in black youth unemployment but that was not my focus. It's on general black unemployment. The male adult rates is more than twice as high as the same for females. It is the whole shmear.

Senator JAVITS. I agree. I was just trying to pick up one piece of the thing because we are dealing with that particular program, which, incidentally, also goes to structural unemployment through lack of training in the older age groups.

Now here you are operating. You discover many facts, many locational facts. How is that translated into the rest of the policy of our government?

Ms. NORWOOD. In several ways, Senator

First of all, of course, we publish a great deal of information in a lot of different places, not only in press releases, but also in articles and in special publications.

Second, we are involved in providing analytical information to the Secretary of Labor and to the various Assistant Secretaries of Labor whenever it appears that we have information that would be of use to them. And many of them request our assistance in the early stages of policy development so that they are able to ascertain the factual situation.

In addition, we are involved particularly with youth. As you are well aware, I know, we have a rather extensive occupational outlook information program. And we are very much involved in the National Occupational Information Coordinating Committee, and we have several people working in that area.

That is a whole apparatus working out of HEW that we and the Employment Training Administration are involved in that also works with State occupational information groups.

Senator JAVITS. Of course the manpower business is in the Department of Labor.

Ms. NORWOOD. Yes, that's right.

Senator JAVITS. Do you feel you are adequately tied in so that in making policy, as they do, they are building upon the building blocks of information which you furnish?

Ms. NORWOOD. I believe that Secretary Marshall in particular, as a labor economist, has paid a great deal of attention to the capabilities that the Bureau of Labor Statistics has, more than many other Secretaries have in the past.

We have been involved not in policy formulation, but rather in providing basic backup information that is needed to formulate policy to a much greater extent than I think we ever were in the past.

Senator JAVITS. Well, now suppose I sent a man to see you, my manpower specialist, and he discussed with you what they have done with your stuff in terms of policy. Would you feel free to say, you know, sorry, they are all wrong? In other words the policy may very much differ from the material which you are sending in there.

Now that doesn't mean you are going to run that policy but it would be terribly valuable, it seems to me, for you to monitor their policy just like we give legislative oversight in monitoring their performance.

Ms. NORWOOD. Well, in a sense, Senator, I think that we do some of that, because what we do is to report on what is happening. If what is happening is not consistent with what some of the policies are prescribed to bring about, isn't that really the same thing as monitoring performance?

Senator JAVITS. But how sure are you that the impact of that is actually translated into their consideration? The fact that Ray Marshall is interested, of course, that is a big shot. He might not get around to it for months, if ever.

Ms. NORWOOD. Well, of course, there are many times when we initiate a memorandum to the Secretary. I participate in his staff meetings. There are many ways that we have contact with other parts of the Department. But remember that our roles is factfinding and analysis of what is going on.

Senator JAVITS. Do you feel it is an adequate system now of cross-reference with Labor and with HEW?

Ms. NORWOOD. I personally believe, Senator, that anything can be made better.

Senator JAVITS. I understand. We are talking not about the optimum.

Ms. NORWOOD. I think it is pretty good. I think certainly one could give it more attention, and we are trying to do that.

Senator JAVITS. But you have no particular matter that you would like to call to my attention now? I'm the ranking member of the Manpower Subcommittee.

Ms. NORWOOD. Not off-hand, but I will certainly keep that in mind.

Senator JAVITS. And any significant aspect of the facts and figures you are finding that should be translated back into policy, particularly in fields where the Government is mounting large programs such as those I have described, would you have that in mind?

Ms. NORWOOD. I certainly will keep that in mind.

Senator JAVITS. Thank you.

Senator PROXMIRE. Mr. Levitan, we are glad to have you. You have appeared before the committee before. It is good to have people looking for ways to improve our statistics. We certainly need that. We are anxious to hear from you.

Make your statement, then we will have some questions for both you and further questions for Commissioner Norwood and her colleagues.

STATEMENT OF HON. SAR A. LEVITAN, CHAIRMAN, NATIONAL COMMISSION ON EMPLOYMENT AND UNEMPLOYMENT STATISTICS

Mr. LEVITAN. Thank you, Senator Proxmire.

Senator PROXMIRE. I understand Congressman Mitchell has to leave.

Representative MITCHELL. I just wanted to apologize for leaving. I was desperately trying to cancel some appointments so I could stay and hear you, but I can't. Do you have a prepared statement?

Mr. LEVITAN. Yes.

Representative MITCHELL. Surely I will read it as assiduously as I have read your past information.

Senator JAVITS. Same for me, Mr. Levitan.

Mr. LEVITAN. Thank you.

Senator Proxmire, I was listening to the questions you and Senator McClure and Congressman Mitchell have——

Senator PROXMIRE. Will you pull the microphone a little closer?

Mr. LEVITAN [continuing]. Addressed to Ms. Norwood. I was delighted that Congress, in its wisdom, limited the jurisdiction of this Commission only to employment and unemployment statistics and not to inflation. I would not claim that the Commission has contributed much to employment during the past year, but I am delighted to report we have certainly contributed very little to inflation.

When I appeared before you 14 months ago I outlined what the Commission is going to do. We succeeded more or less to follow our plan. We have held hearings which the Joint Economic Committee published, for which we are greatly appreciative.

We have also completed the background papers as we promised. Practically all of them are published. We have done that with an unusually small staff headed by Mr. Adams, who is here in the room. If you have any difficult questions, he will help me out. A small staff is also here, all of the three members comprising it.

This comprises the entire Commission staff. On that basis, I don't think we can be blamed for any of the inflation that has festered the country over the past year.

Senator, if it is all right with you I would like to include my prepared statement in the record.

Senator PROXMIRE. We will be happy to have it printed in full.

Mr. LEVITAN. One controlling rule throughout the deliberation of the Commission was not to issue policy pronouncements beyond the mandate set forth in the law which established this Commission. Any reader who carefully examines the 341 pages of this preliminary report will not find any prescription for full employment.

Throughout, our motto has been "recommend the best statistics, considering cost constraints, but leave the policy judgment to others." I will be glad personally, to contribute to policy judgments, but not as a representative of the Commission.

Now in order to minimize the time spent on the direct presentation, I wish to limit myself to only four issues: Two issues on which the Commission members seem to be in full agreement, or almost in full agreement, and two issues on which we are definitely divided.

The first issue on which we have seemed to reach an agreement concerns State and local data. I think that is the most important and challenging problem before the Commission. Congress has repeatedly distributed dollars to State and local governments on the basis of local statistics. Therefore, levels of unemployment and employment at the State and local levels are most important.

It would be useless to talk about extending the Current Population Survey which Ms. Norwood just reported on to State and local levels—possibly it could be extended to the State, but certainly not to the local level—because it would involve thousands of localities. We would be

creating full employment for enumerators and statisticians since literally the most modest estimate would require increased expenditures of hundreds of millions of dollars and would involve hundreds of thousands of households and families.

BLS is therefore forced to make estimates for all sorts of areas because Congress requires it.

I mention in my prepared statement that if the bipartisan Danforth-Rodino bill is enacted by Congress, BLS will have to estimate the levels of unemployment in about 40,000 areas. Consequently, BLS is forced to rely on a horrendous estimation method—and I say "horrendous" because nobody believes that these are really exact figures or that the numbers are precisely the way Congress intended them to be for the targeting of funds. Those appropriations are subject to wide error. As Ms. Norwood's predecessor once testified before this committee, they are to a large extent random numbers and the BLS is forced to produce them.

We have made in the report some recommendations to improve these numbers. They can be improved with a reasonably small outlay. But at best, that is not going to be a satisfactory solution.

I would like to urge Congress to consider a new course of action: To rely upon the mid-decade census data we will collect for the first time in 1985. On the basis of these statistics you can actually estimate employment and unemployment and various demographic factors Congress wishes to consider for distribution of funds.

I fully realize that these figures are going to be stale after a few years, but Congress has to make the decision whether it wants random numbers and guesstimates for distribution of billions of dollars, or whether it wants to rely upon data that may become stale. It is a difficult decision.

There are ways of overcoming radical changes in the economic conditions of communities: Use the same approach as in the case of a disaster. In those cases, of course, we can help a community much more rapidly. But at the same time the numbers would be reliable. The cost would be minimal because they will have already been obtained, and therefore would be available to Congress.

I know this is an uphill battle. Congress always wants monthly data, but that means unreliable data at the local level. So the option you have is either to rely upon these data or upon guesstimates that we have now.

A second issue on which the Commission seems to be in agreement is to recommend to the Congress and the President that the Government not collect job vacancy data. Conceptually we feel sorry that we have to do so because it is a very appealing notion. If we measure unemployment, we should also measure job vacancies to provide information regarding job deficits in the economy. But considering the costs it would impose on employers and the Government, and the doubtful reliability of these data, I think we are going to recommend against collecting job vacancy data, although we are getting quite a lot of pressure to reconsider that recommendation.

Turning to the two issues on which there is disagreement, the first is the perennial controversy over discouraged workers. We agree that the present count can be improved. The 4-week job search period might be altered to a longer one.

But at the same time, we definitely disagree whether to count the discouraged workers, as part of the unemployed. Without going into the details, some of us would suggest that instead of the present BLS method of counting the 600,000 or 700,000 discouraged workers separately from the unemployed, one-third of these persons would be counted among the unemployed. But this would add 200,000 or 300,000 to the unemployed population, which means that Ms. Norwood would have reported to you that unemployment was at 6 percent rather than 5.7 percent.

This again raises the question: To what extent should we rely upon one number rather than upon the figure Ms. Norwood presented to you? That is a dilemma that cannot really be resolved.

We have asked a newspaper person to interview a number of people. He interviewed Members of Congress and some staff people. And the response we got was that Congress and the public look largely at one unemployment figure.

Economists look at more, however. To what extent does Congress form opinions and therefore judgments and policy on the basis of U–5? To what extent do you look at 7 percent unemployment figures?

I think we should place emphasis, not only on one number, whatever the analyses say. I will bet tonight if you look at the 7 o'clock news, your favorite newscaster will cite only 5.7 percent; that is what the country forms its opinion on.

The final point I want to mention—Senator McClure and Senator Javits alluded to it in one form or another—is the question of structural unemployment. That is an issue on which the Commission is very strongly divided. I'm afraid that I will have to speak for myself, since I'm not sure that I will be representing the majority of the Commission. But I hope that what I am going to say speaks for the majority of the Commission.

Namely, I believe we need to link employment and income as a single measure, because Congress continues to emphasize structural problems. At the same time, if we are going to focus on structural problems, Congress has to have a single measurement.

Now I'm going back to the concept of a single measurement. But what happens to the people who are being failed or who are failing in the labor market? Census is currently counting the jobless members of both the families with incomes of $50,000 a year and those with zero income a year as unemployed. For some purposes that may be OK. But for congressional policy formulation, I am sure that even the most liberal Member in Congress would not favor public service employment and youth employment and training programs for a kid in a home with a $50,000 income.

Apparently Congress is willing to appropriate funds for kids coming from deprived or, as we call them these days, disadvantaged homes. For that purpose, I think we do need a single structural measure.

In our Commission draft report we suggest that utilizing the Current Population Survey which provides data on income at least once a year and labor force experience, we can put this index together.

There are very real technical problems to this index. We don't measure area differences in cost of living even though the costs of liv-

ing in Washington, Boise, and Racine, are quite different. It also varies from city to rural area.

But at the same time I know of no social indicator that is perfect. I think even the Current Population Survey statistics at the national level, which we praise very highly for the high professional competence of the folks sitting on my right who prepare it, still has lots of problems.

But whether we will recommend the use of this measurement or not I'm not sure. I think that, again, based on the annual data, we can put together a statistic that would help to serve people with structural problems such as lack of skill or education to compete effectively in the labor market who are experiencing long-term unemployment. It can be done and should be done.

I am reminded of an old Chinese proverb that the former chairman of this committee, the late Senator Douglas, referred to very frequently. A 1,000-mile journey begins with 1 step. I hope the Commission will move in that direction.

I have full confidence that BLS will improve that measurement over the years. And to respond to Senator Javits' comment about tying the work of the Human Resources Subcommittee to labor force statistics, Congress has directed BLS to provide such an index. I hope that once we recommend that index, Congress will favor the adoption of a hardship index, even if it represents only a minority view of the Commission. But I still hope the Commission will recommend an index linking employment and income.

Finally, Senator Proxmire, I would like to indicate that during the year that we have spent in our deliberations we have decided not to take a single vote on any issue. What I have said here today is still open to modification. We sent the draft report to the multitudes for public comment. The response was very, very encouraging and we got lots of good suggestions.

I hope that you will come and help us out in our deliberations.

Thank you, Senator Proxmire.

[The prepared statement of Mr. Levitan, together with an article entitled "Unemployment Statistics: Why We Need To Know More," follows:]

PREPARED STATEMENT OF HON. SAR A. LEVITAN

PROGRESS REPORT

On behalf of the National Commission on Employment and Unemployment Statistics, I am delighted to present a progress report of our activities. This date happens to be most propitious for this hearing. We are celebrating our first birthday today, and as decreed by the law which estbalished this commission, we will fade into history within the next six months. This is one commission whose members are committed not to ask for extensions; we fully expect to complete our work before the statutory expiration date.

Shortly after the commission started its work, columnist Art Buchwald claimed that he found a burial place outside of Washington where all past commission reports were buried. As insurance against such an early interment, we published an advance draft of our report which has been circulated for public comment. The interest generated in response to the draft has been gratifying.

A controlling rule throughout our deliberations has been to avoid the temptation of issuing policy pronouncements beyond the mandate set forth in PL 94-444. I am glad to report that we adhered to our responsibilities as spelled out by the

law, confining our activities to an examination of the present system and the formulation of recommendations for improving the current method of obtaining and reporting labor force statistics. Those readers who comb the draft for a prescription for full employment or for a specific level of unemployment that will lead to accelerated inflation will search in vain. Our motto is "recommend the best statistics, considering cost constraints, but leave the policy judgments to others."

In keeping with your invitation, I will limit my presentation to four issues discussed in the commission draft report. My colleagues and I are in agreement on two of these items and divided on the other two.

State and local labor force data present the commission with its most urgent challenge. Until the beginning of this decade, the lack of reliable local labor force data was not a pressing issue. In 1971, the situation suddenly changed. Under the Emergency Employment Act of that year, Congress inaugurated the first major public job creation program since the 1930s. Since then, the stakes involved have grown enormously. Congress has annually appropriated billions of dollars through a series of new legislation authorizing emergency public works, countercyclical job creation, and other employment and training programs. Congress appropriated more than $10 billion for distribution this year to state and local governments, all based on estimates of the level of joblessness and number of unemployed.

These laws require the Bureau of Labor Statistics to estimate the level of unemployment in thousands of communities, presumably an impossible task given the resources of the agency. But since Congress decrees, BLS complies; and Congress keeps on asking for more and more. For example, it is estimated that if the pending bipartisan Danforth-Rodino proposal (S. 220 and H.R. 1246) to aid depressed areas passes, some 9,500 areas will qualify for aid, and eventually BLS will have to estimate the levels of unemployment in about 40,000 areas. However, the best that BLS will be able to supply will be, as the late Julius Shiskin testified before this committee, random numbers.

The commission report reviews the various options available to Congress for the distribution of funds to localities. Clearly, improvements in the present cumbersome 70 step method, used to estimate state and local unemployment, can and should be made. But it will cost more money. The commission has not discovered a way to produce costless, reliable statistics.

Even under the best of circumstances, the 70 step method will require the government statisticians to use crude estimation techniques—read guessing—and sometimes that means guessing very badly. Since these estimations may result in loss of funds to some localities, this frequently results in an irate citizenry who have counted on these funds to run their governments and in disappointed workers whose jobs hinge on the availability of these funds. In the process, the credibility of the whole statistical system comes under question.

For the time being, however, as long as Congress mandates the distribution of funds to localities, we will have to live with the present ways of estimating state and local data, despite all their warts and blemishes. Efforts by federal officials to add some modicum of reliability to these figures have become increasingly embroiled in political hassels between potential losers and gainers. The BLS is consequently involved in a no-win game.

There is a way out of this dilemma. The law already requires that starting in 1985 we will have a mid-decade census in addition to the decennial census. The 1980 census will provide all sorts of data about the demographic characteristics of the labor force including the number of weeks workers were employed and unemployed during the previous year, as well as their income level. A reliable allocation formula based on these data could be designed for even the smallest areas. The difficulty, of course, is that the data will become stale between censuses. But this is not as great a problem as might appear on the surface, assuming that the mid-decade census will contain the necessary labor force data. A review of the appropriations Congress has made to aid the unemployed reflects an increasing emphasis upon helping those who have faced structural problems—in other words, those who have failed or who have been failed by labor markets during bad and good times. Structural problems associated with poverty, deficient education, or lack of skill do not change readily over short periods. Consequently, the data obtained in the decennial and mid-decade censuses might, in the long run, be more reliable than the guesstimating game BLS is forced to play under existing laws.

Another advantage of an allocation formula based on a 5-year census is that it would provide continuous federal support, no longer fluctuating along with flimsy and unreliable statistics. Testimony presented by local officials at the commission hearings revealed a strong dissatisfaction with the frequent cuts and increases that result from statisticans' guesses. Congress could respond by authorizing discretionary funds on an emergency basis in the event that sudden downturns in local economies develop between censuses. The funds could be provided on a case-by-case basis as is now being done under federal aid to areas struck by natural disasters. In case of overall rises in unemployment, Congress could trigger funds on the basis of national unemployment. Then, the allocations could still be based on the census data.

The collection of job vacancy data is another issue on which the commission members appear to be in agreement. Conceptually, the idea of job vacancy data collection is most appealing; if we measure unemployment, it seems logical to count job vacancies also to obtain the true job deficit. Based on our careful studies, however, we believe that the desired data are not obtainable. The commission is likely, therefore, to recommend that the government not collect job vacancy data. As you may recall, BLS collected job vacancy data in manufacturing between 1969 and 1973, giving up on it as a poor investment. Congress has since appropriated $500,000 to explore the feasibility of reviving this series. We believe that the earlier assessment by BLS was correct; the data would be difficult to obtain, and costly both for the government to collect and for private employers to report. And, at best, the reliability of the data are likely to remain of poor quality.

Turning to the count of discouraged workers—one of the issues on which the commission remains divided—the members do agree that the present count could be improved, but differ on the specific course to take. While hard data are lacking, the circumstantial evidence seems to indicate that many of those who are counted as discouraged workers have a very tenuous attachment to the labor force and may not have looked for work for years or have never even worked in the marketplace. The commission seems to opt for classifying persons as discouraged workers if they have looked for a job within the past six months and indicate that they are available for work. However, we are divided on whether those workers should be counted separately as BLS currently does or whether they should be included among the count of unemployed persons. If discouraged workers, as defined above, were counted as part of the unemployed population, the effect would be, according to our quick estimate, to raise the current unemployment rate by roughly between two-tenths and three-tenths of one percent. Of course, if we recommend that those workers be counted separately, then whatever definition the commission recommends will have no effect on the total measured level of unemployment.

We are also divided on the question of whether to design a new measurement of labor market related economic hardship that would link employment and income. The dilemma here arises from the fact that currently, persons are counted as unemployed or employed regardless of their economic status. This may have been an adequate measurement in the 1930s when the Current Population Survey was designed because very few transfer payments were available and most persons could choose only to work or starve. In that society, there was a very high correlation between unemployment and economic deprivation. Clearly, this is no longer the case today. The commission generally agrees that there should be some measurement linking employment with income. But there is considerable disagreement within the commission as to the specific methodology and data base that can be used to develop such a linkage.

Speaking for myself, I maintain that the development of an index linking employment to income can be achieved at a very low cost, making use of currently available data. In our society, where work and welfare frequently go together, it is necessary to devise a measurement that reflects labor market related economic hardship as distinct from poverty measurements. The proposed index would indicate the proportion of people working, seeking work, discouraged from seeking work or unable to secure a minimum income despite their work efforts because of the low earnings that they and other working family members receive or because of the inadequacy of alternative sources of support.

During each March of the past 11 years, the Current Population Survey has collected data on the work experience, earnings and other income sources of the sample population during the proceeding year. Based on these data, we have

constructed an index that links work and welfare. We include in the hardship index only persons who have a strong attachment to the labor force, namely 40 weeks of labor force participation during the preceding year, and who are members of households with incomes below twice the poverty index during the year. To repeat, the commission has not yet adopted this or any other index linking employment and low income.

Of course, there are many technical difficulties associated with this index. The definition of hardship is necessarily arbitrary. But then, what social indicator isn't?

We also lack adequate data to take account of regional differences in cost of living. This is a perennial problem, one that has troubled policymakers in connection with minimum wages, transfer payments and other welfare programs. Finally, the lack of necessary data to cost out food stamps, housing subsidies and other in-kind support is a serious shortcoming of the proposed hardship index, since that measure would focus on those at the bottom of the economic ladder.

Every long voyage has to start out with a single step, and once an index is designed, technical improvements tend to follow. History has shown this to be the case with the Current Population Survey. My expectation is that the same will hold true for an index that links income with earnings, although some of the technical difficulties I alluded to are not likely to be overcome with present funding levels. Development of such an index would also produce a special bonus: The index could serve as the basis for allocating funds to communities with quinquennial data serving as the source of data, as outlined earlier.

In closing, on the matters I have discussed here and any others that are before the commission, our minds are not sealed. When we started the deliberations a year ago, we decided not to take a formal stand on any issue until we had presented the public with a draft report. Our recommendations will be influenced by the comments we have received. They are now before us and the staff is analyzing them.

The commission and its statutory advisors will meet on April 19 and 20 to formulate the final recommendations. Of course, we hope that the members of the JEC and their alternates who are advisors to the commission will participate in our deliberations.

E.P.O.
March/April 1979 Vol. 1, No. 2
The Magazine for Elected Public Officials

Unemployment Statistics: Why We Need to Know More

A new way to tie federal aid to local unemployment is just one proposal from the national commission on labor force data.

By Sar A. Levitan

Each month, there's a new list of winners and losers in the nation's richest lottery—the local unemployment-rate sweepstakes. Results are released by the U. S. Department of Labor Current Population Survey, which publishes employment and unemployment data not only for the nation as a whole but also for more than 6,000 separate communities. While government economists study the statistics with an eye to fiscal and monetary policy, governors, mayors and county executives pore over the figures to learn whether they can expect more or less money from Washington.

When the survey shows local unemployment rising, it may mean more unemployment benefits, more job and training projects, more public works or a larger slice of countercyclical revenue sharing, depending on legislation then on the books. When the survey shows less unemployment, it means less in the way of federal aid, and the list of government programs that now allocate funds on the basis of labor force data keeps growing.

What makes the labor force lottery a game of chance is that local allocations are based on estimates by the Bureau of Labor Statistics. These estimates can often be inaccurate, and public officials are increasingly reluctant to accept them without protest, particularly when they result in reduced federal assistance.

Overall, there is a growing uneasiness with our measures of employment and unemployment. While the greatest doubt is cast on state and local data, there is also suspicion that nationwide figures are misleading. A system devised four decades ago for an economy and a society considerably different from today's may not be able to provide the kind of information policy makers now need.

Congress Responds

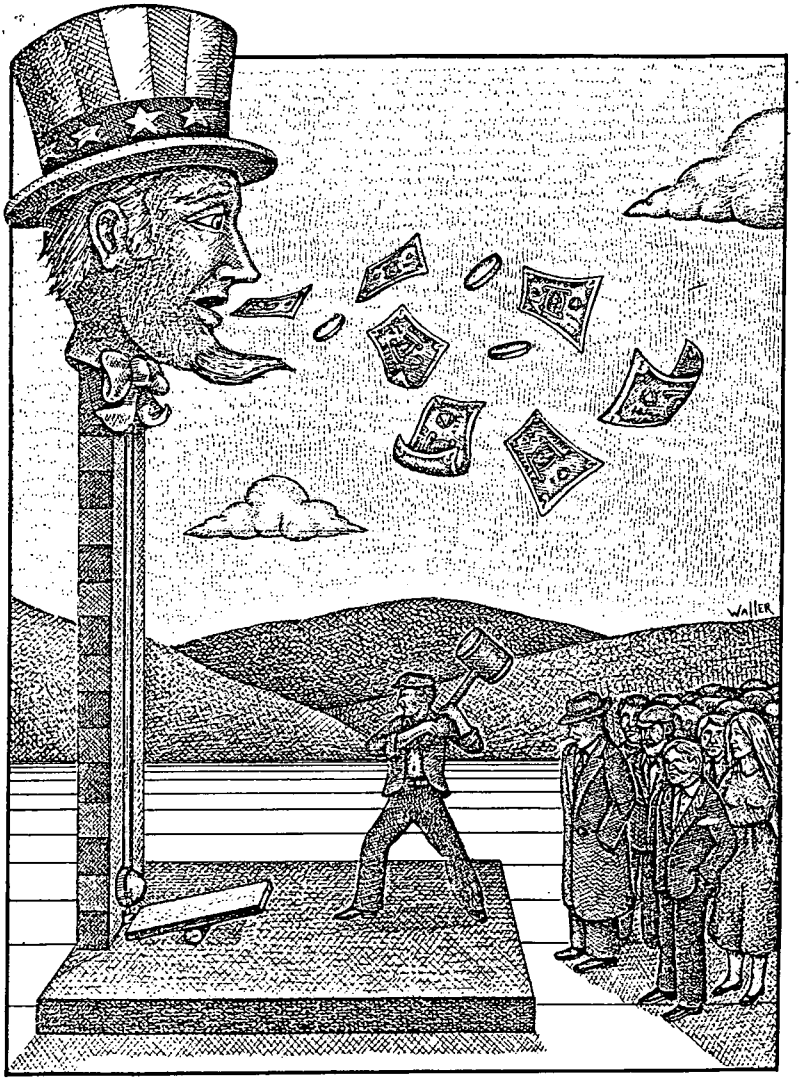
Responding to these concerns, Congress established a National Commission on Employment and Unemployment Statistics to study how labor force data are gathered and reported and to recommend ways of improving their accuracy. Early last year, with the advice and consent of the Senate, President Carter appointed me as chairman and named eight other commission members to carry out the Congressional mandate. The Secretaries of Labor and Commerce, five other representatives of the executive branch and six members of Congress—three from each party—serve as statutory advisers to the panel.

Although its final report is not due until September 1979, the commission decided to issue a draft report earlier in the year. We hope in this way to ensure against premature interment of our conclusions (Art Buchwald recently described the graveyard where federal commission reports are buried) and to encourage public discussion and criticism of our preliminary findings, not only by experts but also by public officials and other Americans who use or are concerned with labor force statistics.

This article contains the interim report's major proposals. However, since the report does not necessarily reflect the views of all members and considers more than one option to resolve several controversial issues, there is no guarantee that these findings will be reflected in our final report. Still, by showing how issues the commission has studied first arose and discussing possible resolutions, I have attempted to convey the significance of the questions we addressed and the reasons for the recommendations we are considering.

National monthly employment and unemployment statistics date back to 1940. During the past four decades fed-

Sar A. Levitan is research professor of economics and director of the Center for Social Policy Studies at The George Washington University, and chairman of the National Commission on Employment and Unemployment Statistics.



E.P.O. MAR/APR '70 19

Estimating local unemployment, federal statisticians often guess and sometimes guess very badly.

eral statisticians have developed a comprehensive, although not faultless, system of measuring labor force activities. But the system has focused on national data, neglecting the fact that the nation consists of numerous local economies and labor markets.

Until the beginning of this decade, the lack of local labor force data was of concern mostly to academicians and statisticians. State and local officials were interested in the health of the economies they served, but the lack of adequate data was not an urgent issue and few policy makers sought precise employment and unemployment statistics.

Federal policies changed all this, but the change was gradual. Beginning with the Korean War, the federal government granted preferential treatment in federal procurement to labor surplus areas. The program was never too effective and was honored more in its breach than in its implementation. Nonetheless, the Labor Department, told to designate areas with surplus labor, began developing state and local employment and unemployment data. A decade later, a federal program to help depressed areas further stimulated the generation of local labor force statistics.

Interest in local unemployment data accelerated sharply in 1971, with the first public job creation program under the Emergency Employment Act. Since then, Congress has annually appropriated billions of dollars that are allocated to state and local governments on the basis of various employment and unemployment formulas. The latest major piece of legislation to allot funds by unemployment rates and the size of the unemployment population was the 1978 reenactment of the Comprehensive Employment and Training Act (CETA), passed in the closing days of the 95th Congress. This law alone authorizes the annual distribution of $11 billion to "prime sponsors," the trade name for the chief elected officials in 50 states and the more than 400 political subdivisions with populations in excess of 100,000. As a result, local labor force figures have become an increasingly critical concern of elected officials.

The major source of national labor force statistics is the monthly Current Population Survey issued by the Labor Department's Bureau of Labor Statistics (BLS). The Bureau of the Census randomly selects some 56,000 households and reports the labor force status of all members over 16 years of age. Individuals are included in the labor force if they are working or if they are looking for work. From this sample, the size of the nation's labor force and the numbers employed and unemployed are determined.

The monthly summary provides a wealth of demographic detail about the work force including data on age, sex and race, number of hours worked and distribution of workers by industry and occupation. Data on the unemployed include reasons for their unemployment—whether they lost or quit their last job or recently entered or reentered the work force.

Guesstimating

National figures based on the survey sample are highly accurate. But local employment and unemployment are determined by crude estimation techniques and drawn primarily from unemployment insurance data. This means federal statisticians are often guessing, and sometimes they guess very badly.

It was not so long ago that public officials were known to announce with pride that their communities had no unemployment problems. These same officials, or their successors, still tend to extol the virtues of their states and communities. But now they realize that a perfectly healthy local economy means less money from Uncle Sam. To a major metropolitan area, such as Chicago, an increase of 1 percent in unemployment would bring $18 million more in CETA funds, increasing the 1979 program allocation by one-sixth. Thus, local officials clearly see the need for reliable labor force estimates.

The best means to achieve this end would be to expand the national survey to local areas, but such an expansion is not in the cards. Currently, the BLS is responsible for publishing monthly estimates of unemployment in more than 6,000 areas, including the 50 states, the District of Columbia, all major metropolitan areas and the nation's 3,100 counties. Although Congress has shown an almost insatiable appetite for detailed information about the labor force and has sought to secure it from ever smaller areas, legislators apparently assume that this can be achieved at no cost. Congressional appropriations for labor force statistics seem to follow the dictum of "billions for the unemployed but not a penny for the bureaucrats." This may be good politics, but it is no way to provide the reliable information necessary to carry out the intent of Congress and target funds for areas most in need.

Collecting uniform and reliable data is an expensive operation. For example, to collect monthly data for each state and the District of Columbia (which would in two out of three cases yield an unemployment rate within 5 percent of a complete census count—what the statisticians call a coefficient to variation of 5 percent) requires a monthly sample of 377,400 and would cost $25 an interview. The annual price tag for such a survey would total $113 million—more than five times the cost of the current national survey. To collect monthly data for each of the 460 prime CETA sponsors and settling for a sample of 1,850 in each area (at the risk of sharply reducing the reliability of the data) would require 851,000 interviews and cost more than a quarter of a billion dollars. To collect similar data for all of the counties would multiply the cost to some $2 billion. In addition to these vast expenditures, there would be the bother to citizens who would have to supply information to government enumerators. The conclusion is clear. The household survey is too costly an instrument to obtain reliable state and local employment and unemployment data.

The commission, however, was reluctant to recommend continued depen-

dence on the present system and estimates based mostly on unemployment insurance figures. Although all states and the District of Columbia participate in the unemployment insurance program, each state has its own laws and regulations. Roughly 40 percent of those counted as unemployed by the Current Population Survey receive unemployment insurance. But, state by state, the proportion varies from about 20 to 60 percent. Some variation results from local economic conditions and the number of unemployed who exhaust their benefits before they find work, but much of the variation is produced by differences in eligibility requirements. In addition, there is no way to discover through unemployment insurance the number of workers entering or reentering the labor force since these workers are not covered by that insurance.

Local Estimates

The Department of Labor has prepared a manual describing its 70-step method of estimating state and local unemployment with instructions on how to gauge the number of unemployed persons in each area. The results are what statisticians call "biased" (which does not mean they are slanted, merely that there is no way to guard against the kind of error that could consistently produce inaccurate figures). What's more, these figures frequently fail to take into account the special nature of communities and their work forces. For example, rural areas have little official unemployment. Because there are so many chores on a farm, labor force statistics routinely classify most farm residents as employed even though they may barely eke out a living or work, at best, part time.

Under the best of circumstances, estimates of state and local unemployment are unreliable. While these data can be improved, such efforts increasingly involve federal statisticians in political hassles with local officials whose communities are likely to lose funding as a result.

There is a way out of this dilemma. The law already requires that starting in 1985 we will have a census every five years instead of every 10. The census provides all sorts of data about the labor force, including the number of weeks workers were employed and unemployed during the previous year, as well as their income levels, allowing reasonably reliable allocation formulas to be designed for even the smallest areas.

The difficulty, of course, is that the data will become stale during the five years between censuses. But this is not as great a problem as it might first appear. More and more, Congress has sought to provide aid to the victims of structural unemployment—those who have failed in or who have been failed by labor markets during bad and good times. Structural problems associated with poverty, deficient education or lack of skill are slow to change. Consequently, the data obtained every five years might, in the long run, be more reliable than the guesstimating game federal statisticians are forced to play under existing laws.

Another advantage of basing the allocation of federal aid on local labor force data derived from the census is that it would provide continuous, sustained support. Local officials testifying at commission hearings indicated a preference for stable levels of assistance over frequent cuts and increases. Congress could authorize discretionary funds to respond to sudden downturns in local economies, allocating case-by-case emergency unemployment assistance the same way aid to areas struck by natural disasters is now provided. Should overall unemployment rise, Congress could trigger funds nationally, basing allocation on census data.

Labor Force Definitions

While the improvement of state and local labor force data is a prime concern, the commission has not neglected other aspects of employment statistics, including labor force definitions. Our society and economy have undergone vast changes since these definitions were developed 40 years ago, and many have become outdated. Possibly the most serious deficiency is the present system's dependence on the rigid categories

National Commission on Employment and Unemployment Statistics

Members: Bernard E. Anderson, the Wharton School of the University of Pennsylvania; Glen Cain, University of Wisconsin; Jack Carlson, vice-president and chief economist, the Chamber of Commerce of the United States; Michael H. Moskow, vice-president of corporate development and planning, ESMARK, Inc.; Rudolph A. Oswald, director of the department of research, AFL-CIO; Samuel L. Popkin, University of California; Mitchell Sviridoff, vice-president for national affairs, The Ford Foundation, and Joan Wills, director of the employment and vocational training program of the National Governors Association. The author is the chairman of the commission.

The commission's advisory panel includes the Secretaries of Labor and Commerce, the director of the Office of Management and Budget, the chairman of the Council of Economic Advisers, the chairman of the National Commission for Manpower Policy, the acting commissioner of the Bureau of Labor Statistics and the director of the Bureau of the Census. Six members of Congress on the panel represent the Joint Economics Committee, the Senate Committee on Human Resources and the House Committee on Education and Labor.

Copies of the commission's interim report can be obtained by writing to the National Commission on Employment and Unemployment Statistics, 2000 K St., N. W., Room 550, Washington, D. C. 20006.

of employment and unemployment. When a worker is employed even for only one hour, he is considered employed; a jobless person who looks for only one hour of work is considered unemployed. But these definitions tell us very little about the adequacy of the worker's employment.

There are millions of people in the labor force—some of whom work full time, full year—who do not earn enough to lift themselves and their dependents out of poverty. Present labor force definitions do not take into account the fact that most of us are in the work force to make a living wage. A definition that was reasonable in the Great Depression—when any job was good and people either worked or starved—became unreasonable as the welfare state expanded the gray area between being in or out of the work force. Today, many people who depend upon government support also frequently participate in the work force, at least on a part-time basis.

The Nixon and Carter Administrations have attempted to create a system in which work pays more than welfare. Such a system requires labor force statistics that report far more than just the number of individuals employed and unemployed.

Work vs. Welfare

In a society where work and welfare frequently go together, it is necessary to devise measurements that will reflect both income and the relationship of individuals to the work force. The indices would indicate the proportion of people working, seeking work or discouraged from seeking work who are unable to secure a minimum income on their own and have no other working family members or sources of support. Although Congress instructed the Secretary of Labor to study the feasibility of such a measurement five years ago, federal statisticians have so far done little. The commission believes such a series of measurements would go a long way toward illuminating labor market operations and could also help Congress develop welfare reform legislation.

Closely related to the development of what could be called a hardship index is the controversial issue of counting as employed those individuals statisticians call "discouraged workers." These are persons who indicate to the government enumerators that they want a job but have given up looking because they believe there are no jobs for them. Studies conducted by the Bureau of Labor Statistics for the commission suggest that this discouragement is often due to a realistic appraisal of labor market conditions. On the other hand, some who indicate a desire for a job have not actually looked for work in more than a year, and chances are they are not really interested in one. Currently, the unemployed are considered to be those who seek work during the four weeks prior to the survey—a system that is arbitrary. One proposal considered by the commission is to count as unemployed those individuals available for work who have sought a job within the last six months but have not looked in the last four weeks because they believe no work is available. Presently, however, the members of the commission are divided on this.

Whether or not members of the armed services should be counted in the labor force presents a different problem. Under present definitions, soldiers, sailors and airmen are not counted. This practice was probably reasonable during the first 33 years of the Current Population Survey when the armed forces were largely conscripted and military wages and jobs were radically different from those of other workers. Since 1973 we have had a voluntary armed force, and employers must compete with the military for employees. There is a great deal to be said in favor of counting the military as part of the labor force. Members of the armed services today are likely to man typewriters instead of guns, serve as technicians, repair equipment or perform administrative duties. The occupational mix is very much like that of the civilian work force. The distinction between the military and civilian labor force is not so valid as it was when the current labor force count started.

This is hardly an esoteric consideration to the mayors of San Diego, California, and Norfolk, Virginia, or to many other mayors and county supervisors throughout the country. By adding the military to the labor force, the number of employed in their communities would automatically increase while the number of unemployed would remain unchanged, producing a lower ratio of joblessness. San Diego County might lose annually as much as $7 million in CETA funds alone if the military were counted as part of the labor force.

One way to resolve the problem would be to include the military as part of the national labor force but to leave local statistics unchanged. This approach recognizes that the military operates in a national rather than a local labor market and unemployed youngsters cannot apply directly for jobs at the military installations in their communities.

Counting Youngsters

How to count youngsters is another concern of the commission. Currently, we count as part of the labor force all persons 16 and over who work or seek work. The commission is considering whether it is appropriate to include those under 18, since nearly 90 percent are still in school. Except during summer months, most youngsters seek only a few hours work at best, and their attachment to the labor force is very casual. The decennial censuses between 1870 and 1930 counted workers 10 years and older as "gainfully employed." By the time the Current Population Survey started in 1940, compulsory education was nearly universal until age 14 and only youngsters above that age were counted in the labor force. By 1967 the age limit for boys and girls in the labor force had been raised to 16. The commission is divided on the issue of raising the age limit to 18, reflecting current societal practices. Apparently a major-

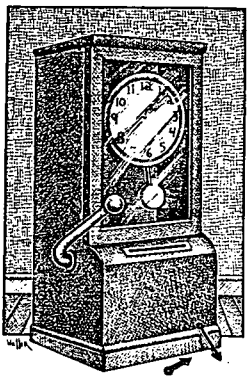
ity favors retaining the present definition of the labor force.

Tightening definitions and concepts alone is not going to fill current information gaps. Better data are needed to formulate policy and understand labor market operations. But additional data cost money, and the commission cannot ignore this fact.

In general, the commission has exercised considerable restraint in recommending the collection of new data. Speaking for myself, I suggest limiting the commission's thirst for data by proposing no more than $50 million for new information, the outlays to be spread over several years. While I firmly believe that Congress should fund a sound statistical system, I recognize that ours is only one of several dozen national commissions concerned with government data needs. I am sufficiently old-fashioned to think that $100 million here and $50 million there add up to a tidy sum even in this inflationary era.

A Larger CPS Sample

Expanding the size of the Current Population Survey (CPS) sample is a top priority. The commission is convinced the increase is necessary to obtain better data for the states on a uniform basis, as well as to obtain better data on minorities. There is a pressing need to increase the sample size of minority groups. CPS data for blacks are presently unreliable, while data for Hispanics are nonexistent on a monthly basis. This situation embarrasses policy makers as much as analysts. Because of the sample size, government statisticians are forced to report, for example, that when the CPS shows unemployment for black teenagers rising from 30 to 35 percent, this is not statistically significant. But when it shows unemployment for white teenagers rising from 14 to 17 percent it *is* statistically significant. Clearly, any real increase is significant. However, a 5 percent shift in CPS figures for black teenagers is based on so few interviews that it may represent no real



increase at all.

In addition to the Current Population Survey, which obtains its data from households, the government also collects information about employment and earnings by industry and occupation from some 165,000 employers who voluntarily participate in a business establishment survey sample. The data provided by these establishments serve as a basis for tracing earnings of workers and measuring labor productivity. However, the rapidly expanding service industries are not well represented, and the commission will recommend expanding this sample and offering greater financial assistance to state employment agencies that cooperate in data collections.

Mindful of the costs, commission members have actually advised against the collection of new data in some areas. One example is information on job vacancies. The idea of collecting this information is very appealing. Since we count the number of unemployed, it would seem reasonable also to count jobs that go unfilled and determine the nation's true "job deficit" (the number of unemployed workers less the number of vacant jobs). The Bureau of Labor Statistics started to collect job vacancy information nearly a decade ago but gave it up in 1973 as a poor investment. Congress, nevertheless, has urged the Bureau of Labor Statistics to try again and has appropriated funds for experimental studies. The commission is apparently going to recommend against such an expenditure because of the technical and conceptual difficulties involved.

The commission studied seasonal adjustments—the ways BLS statisticians now smooth out unemployment curves to compensate for such fluctuations as the sharp rise that occurs each June when youngsters are let out of school. The commission is suggesting changes in current methods. Because of the political impact of employment and unemployment information, the commission also looked closely at how data are presented to the public, including the need to interpret data and highlight important developments for TV and radio newscasters and newspaper reporters.

While the commission unanimously agreed that BLS should not be subjected to political pressures, the members recommend a stronger role for the bureau's labor and business advisory panels in the development of labor force data. They also propose closing the gap in this advisory system by adding a panel of state and local elected officials, who have a vital interest in employment and unemployment statistics.

The draft report released by the commission outlines the findings of the panel to date. The members of the commission have delayed voting on the issues, awaiting the opportunity to consider comments they receive. Public officials and private citizens can therefore have an impact on the final product.

Our labor force statistics are not only important to making policy, but they also help us understand how our economy works. The best numbers in the world won't solve our problems. But it is hard to know what policies are required without good data, and our labor force data system clearly needs changes. ☒

Senator PROXMIRE. Thank you, Mr. Levitan, very much. I want to congratulate you on your fine work and your hard work over the years. It's been a great inspiration to us. I think that you have been a marvelous crusader for an index that means more than the present unemployment index.

The present unemployment index, I think, is viewed by many people as a kind of hardship index. I think the general impression that people have is that this indicates how many people are really poor and suffering. And obviously, we have working poor who may be employed. We have others unemployed who may be very well off indeed.

I was astonished a while ago. Howard Shuman on my staff tried to find out if we had any indication of how much of the $531 billion budget we have that helps the poor. We inquired. And in program after program, nobody could tell us. They had no indication of it. Even in programs like social security and other programs, they had no idea how much of it really helped people with low incomes and how much did not.

Of course in some programs it might be hard to calculate. But there was no indication anywhere in our Government of how much of the amount we spend really helps the poor. I suspect it is far less than it is represented.

That is always the argument you get you know. You cut the budget, you hurt the poor. It is cruel. It is inhuman. If you have got any compassion in your heart, you have got to spend more money. But they can't give us any verification of that at all.

Mr. LEVITAN. Well, Senator, during the days of OEO, the top priority was to allocate all the appropriations among the poor. And you will excuse me, Senator McClure, if that sounds partisan. As Chairman of the Commission on Employment and Unemployment Statistics, of course I am pure as the driven snow.

But for some reason or other, under the Nixon administration those numbers were discontinued, simultaneous with the dismantling of OEO. There are still some estimates but they are very poorly done.

I agree with you, Senator, and I would recommend that you urge the Director of OMB to revive estimates of the extent to which the $531 billion national budget goes to the poor.

It can be done, should be done and again, I would go along with what you have mentioned, Senator McClure; namely, such a measure would tell us something about what we are doing for the poor and structurally unemployed.

Senator PROXMIRE. In the report the Commission is undecided whether 16 years of age should be retained as the lower boundary for inclusion in counting the labor force. If the age cutoff were raised to 18 years would that mean teenage unemployment rates could be reduced by the wave of a statistical wand? What policy implications would result from such an action?

Mr. LEVITAN. One of the policy implications would be of course that instead of reporting roughly 5.7 percent unemployment, we would report 5.1 percent nationally.

Senator PROXMIRE. It would go down about 0.5 or 0.6 of a percent?

Mr. LEVITAN. Yes.

At the same time it would also reduce teenage unemployment, and instead of the 31.5 percent for blacks mentioned and I forget what it is for whites——

Senator PROXMIRE. Fifteen.

Mr. LEVITAN. Excluding the 16- and 17-year-olds would substantially reduce the percentage of teenage unemployment since obviously the current rate is very large.

The problem is, and this is the argument that some inside and some outside the Commission urge, that if we reduce it, we are brushing youth unemployment under the proverbial rug.

But you also have to look at the fact that 89 percent of those 16- and 17-year-olds are going to school. And that is no longer a racial issue; blacks and whites are going to school at the same rate now proportionately up to age 18. If they are going to school then under the provisions of various experimental programs like the Youth Administration Act that Senator Javits and Senater McClure alluded to, should we really count them as unemployed? That is the issue.

There are other problems involved. But basically that is where we are divided.

Senator PROXMIRE. Do you have any public comments on that option? Have you received any public comments outside the Commission?

Mr. LEVITAN. Yes, several, Again they are divided. Those who want to show that youth unemployment is a bigger problem favor counting 16- and 17-year-olds as unemployed even if they are in school.

I am not saying it isn't a problem. There is definitely among black youth unemployment a critical situation as you said, Senator McClure. And I don't use the word lightly.

But at the same time once we counted in the labor force—that was even before my time—kids at age 10.

Senator PROXMIRE. Age 10?

Mr. LEVITAN. Yes. Between 1870 and 1930, the Census didn't count unemployment. It counted the gainfully employed which made sense then because in an agrarian society, kids started working at an earlier age. By the time we started the Current Population Survey in 1940, we had raised it to 14 because at that time education was compulsory in most States until age 14.

In 1967, Ms. Norwood's predecessor—I am assuming the Senate will soon confirm her nomination—changed that to 16.

The question is: Should we change it again at this time?

Senator PROXMIRE. Let me ask Commissioner Norwood to comment on that. Do you have any views on that?

Ms. NORWOOD. I think, Senator, that is really a policy judgment that needs to be made.

Senator PROXMIRE. How about the reasoning we have received from Mr. Levitan?

I remember speaking at a high school in Wisconsin not long ago. And I inquired about the proportion of juniors and seniors, full-time students who were employed. A very large proportion were. I was astonished at how large a proportion, about 70 percent, had jobs of one kind or another.

Now if they weren't able to find a job after school, of course they worked after school and on weekends, it would be a hardship for them, and maybe for their family.

But compare that with the hardship of an adult who is out of work, of course, it is hardly fair.

In view of the fact that the age has been increased from 10 to 14 and from 14 to 16, and in view of the fact we now have attendance at school usually through 17, on that basis wouldn't it seem logical?

Ms. NORWOOD. Well, it certainly is possible to do. Other countries have an even lower breakoff point. That is, most of them include 15-year-olds. I think again it gets down to——

Senator PROXMIRE. Let me interrupt. Other countries, though, usually don't have their children going to school as long as we do by any means. As a matter of fact, as I recall, I was in Europe some years ago, but while I was there it was my understanding that employment among teenagers was very high and unemployment was very low. They moved them into the work force pretty directly, a lot from grade school.

Ms. NORWOOD. That is certainly so. It is changing of course. But I think the appropriate age breakoff is really just a judgment that needs to be made. And I think it needs to be made in relation to all of the other groups in the labor force.

I would certainly hope that whatever we did, we still maintained information on young teenagers, and we certainly could do that whether they were included or excluded from the unemployment rate.

Senator PROXMIRE. Mr. Levitan, the Commission recommends that the current population survey be expanded to provide annual average data for all States, all SMSA's and large cities with a population of 1 million or more. I have the report here on 10 large States.

I must say that I have some trepidation about doing much with these statistics because they seem to jump all over the place. I don't have a great deal of faith—maybe I'm wrong—in the validity even of these large States.

New Jersey for example had a drop in unemployment from 7.6 percent in February to 6.7 percent in March. New York on the other hand right next door to New Jersey with very, very similar forces playing in the labor market you would think, had an increase. Whereas New Jersey had a sharp drop, almost 1 full percent, New York had an increase from 6.6 to 7.3 percent.

Ohio had a sharp drop in unemployment from 5.6 to 5 percent. Pennsylvania had an increase from 6.2 to 6.9 percent.

You wonder whether in view of the statistical problem involved here, even though these are very large States, whether those figures are right and how much it will cost, how many dollars it will take to give us accurate figures on every SMSA with 1 million or more population.

Won't that be very expensive, and how much will it be?

Mr. LEVITAN. First of all, Senator, you are referring to monthly figures.

Senator PROXMIRE. That's right.

Mr. LEVITAN. We certainly would not recommend to BLS and to Congress that monthly figures be used for any distribution of funds. I think it would be better to collect yearly statistics, which would not require a large sample increase. That way, you would have much more stable figures.

Again I do not want to defend these numbers because I am trying to sell you on the use of the decennial census which would cost very

little—only the cost of a computer run since the data would already be there.

Senator PROXMIRE. You are saying do it every 10 years?

Mr. LEVITAN. You are going to have that anyway.

Senator PROXMIRE. Going to have what?

Mr. LEVITAN. There is already a law that mandates a mid-decade census. Of course it depends——

Senator PROXMIRE. How often will you get the figures then, every 5 years?

Mr. LEVITAN. Five years.

Again, as I said before, Sentor, the local figures we use now are not reliable and as you just pointed out, monthly figures even for States move all over the lot.

Senator PROXMIRE. If you are going to make policy, it is pretty hard to make policy based on figures that come to you every 5 years. It is very hard.

Mr. LEVITAN. No, not necessarily.

Senator PROXMIRE. Policy with respect to unemployment at least, isn't that right?

Mr. LEVITAN. Structural problems do not change very rapidly. You can base policy on such numbers.

Again, Senator, your question suggests to me that you are trying to compare it with an idealized version. We are saying, and you also pointed out, that even if you increase the sample for large States on a monthly basis, you will get unreliable figures. On an annual, or 6-months moving average basis, you will get much more stable figures.

But still you will have some technical problems. Congress will have to decide whether to keep on asking for more and more figures that are not deliverable. The choice is between guesstimates which, by law, the Bureau of Labor Statistics is required to publish, or whether Congress will rely on something that is dependable but a little stale.

Senator PROXMIRE. Let me ask you one more question before I yield to Senator McClure.

I am delighted at your recommendation to include the Armed Forces as part of the work force. They should be. It is utterly ridiculous to leave out 2 million people who work very hard I think; I was in the Armed Forces. A lot of people don't think so, they think Beetle Bailey is typical but I think a lot of the people in the Armed Forces should be considered employed.

What are the reasons for excluding the Armed Forces from local area statistics and what effect would their inclusion have on the national unemployment rate?

Mr. LEVITAN. I will answer this question first with the official answer, and then the nonofficial answer.

The official answer is, of course, that this exclusion from the local labor force statistics is justified by the fact that when a youngster enters the military, he or she does not necessarily enter in that particular area. Therefore, it is not a local labor market. The military operates in a national labor market.

A youngster entering the Navy from Wisconsin is not likely to stay in Milwaukee or Madison—there are not many big battleships

around there. They will most likely be sent to San Diego or the other end of the continent. Therefore, it is not a local labor market.

This is the official reason.

If you will permit me to, I will explain the real issue behind all this.

We didn't think that it would fly because if we recommended it for the local level, including the military in the local count for San Diego would reduce unemployment roughly by 1.5 percent. Similarly, if you proposed inclusion of the military for the Norfolk, Va., count or for some such area, the idea would be rejected.

This sounds like playing a little politics. We decided to at least recommend including the military at the national level, so as to have a more realistic count of employment and unemployment.

Senator PROXMIRE. What effect would this have on the national unemployment rate? How much would it reduce it?

Mr. LEVITAN. Of the 2.1 million, about 1.4 million are in the continental United States. By including the military, the numerator would not change because they would all be employed by definition, but the denominator would be raised. As a result, unemployment would decline roughly by 0.1 percent.

Senator PROXMIRE. That is all unemployment would go down, 0.1 of 1 percent?

Mr. LEVITAN. That's right. Possibly, it would be less than that because some of the military do moonlight and, therefore, may be already reported as employed. Roughly it would be 0.1 of 1 percent.

Ms. Norwood would have told you unemployment is 5.6 percent if everything else remained the same rather than 5.7.

Senator PROXMIRE. Senator McClure.

Senator MCCLURE. Thank you, Senator Proxmire.

I don't know which is least accurate, a stale figure from an inaccurate census, or fresh figures from an inaccurate statistical sample. I have been troubled with that for a long while. I debated with myself for a long while before voting for a mid-decennial census, because I think a widening statistical sample is oftentimes just as accurate, perhaps more accurate than census figures which take a great deal of time to compile.

I would invite your comment.

Mr. LEVITAN. Nationally of course the sample is big enough. You are correct. But when you start applying that to small labor market areas, then the answer is no. The sample becomes smaller and smaller. Therefore, the margin of error increases geometrically and the numbers are no longer reliable.

Again, I am not suggesting that we give up the sampling technique for all purposes. If Congress wanted to allocate a frozen amount of funds, whether it is CETA or the Danforth-Rodino bill, you still could base, the trigger mechanism on the national figure.

If distribution is made according to structural needs though, then you want to measure structural problems rather than unemployment.

Senator MCCLURE. Certainly we can increase the statistical sample at some given level of cost, and therefore, increase its accuracy. We are doing the same thing by a mid-decennial census which costs a great deal of money.

The question in my mind is which is the better expenditure of money, to get better statistical information, or better enumeration in a mid-decennial census.

Mr. LEVITAN. I would answer with the usual argument, but I think it is also a correct one: a $531 billion budget requires data on housing, education, and health, as well as for employment and unemployment statistics.

And while I hate to talk loosely about the $100 million or $200 million it will cost—considering that the decennial census, which has a larger sample, will cost $1 billion—I think that the mid-decade census is necessary.

Since I'm currently in the statistics business, I'm lobbying for a little more statistics.

Senator MCCLURE. Concerning the hardship index you state it is awfully difficult to take into account the regional differences of cost of living and transfer payments. Can we really have a meaningful hardship index if these two aspects cannot be measured accurately?

Mr. LEVITAN. We have to realize that some imperfections and faults do exist. For example, whether you favor it or not, Congress has had a policy of minimum wages now for 41 years. And for determining the minimum wage, I think we need to measure cost of living differentials.

When Congress passed a Fair Labor Standards Act in 1938, it mandated determination of wages on the basis of industry at a local level. It gave up on it as a poor attempt. For the last 30 years, we have had one minimum wage. We need the cost of living differentials.

I think it would be extremely costly. I don't know exactly the cost involved. As I suggested before, thank heavens that is not in the Commission's jurisdiction.

But we will never get good cost of living differentials between the major city in a State and a rural area. We would need thousands and thousands of samples. The cost would be tremendous.

The same holds for estimates on the local level. If you want to spend a few hundred million dollars—maybe more—you would get better cost of living differentials among areas. I believe that will be something we will have to live without.

Senator MCCLURE. In your prepared statement you say one possible definition of discouraged workers you may or may not want to include in the labor force is workers who have looked for a job within the past 6 months and indicate that they are available for work.

In your discussions with the Commission, do you identify how active a person must be in this job search during the 6-month period? Does he have to look for a job continuously throughout the 6-month period, or only show evidence of having once looked for a job during the 6-month period?

Mr. LEVITAN. We would like to have a stronger or more rigorous job search test, but again, how many questions can the federal enumerator ask in the survey? It is a voluntary survey. If too many questions are asked, we are going to impose excessively upon volunteer respondents.

We have to live with less than 100 percent of what we want. Right now the job search is a very, very poor test.

First of all, it is not the person himself or herself that answers the question. Any adult in the family can answer for all the people in the household.

"Has Johnny looked for a job?"

"Yes, he has."

We don't know if he has during the last 4 weeks. Johnny is counted as unemployed. How much has he really looked? There are all sorts or tests: Looking for a job, telephoning, going to the gate, looking at newspapers.

And then try to ask more than just the one question, "Has he or she looked for a job?" That would involve again a great expansion of the survey.

One thing that BLS and Census kept on warning us about and which I think I am persuaded about, is that we have to keep the questions to a minimum because it is not just costly to the Government, but also because we are imposing too much upon households who volunteer the information.

Senator McCLURE. I am intrigued by the possibility of an income test being added because certainly that would begin to look at the person who is moonlighting, seeking two jobs. He has one job and lost the other and is a statistic on the one that he's lost, even though he's fully employed as most other people. He just happens to, for one reason or another, seek another job.

Mr. LEVITAN. Senator, that person would not be counted as unemployed. If I'm a professor and moonlight on the side, I am still counted as employed.

Senator McCLURE. You suggested a moment ago that the military who might be moonlighting would be counted as unemployed.

Senator PROXMIRE. If the Senator would yield, the problem would occur in the establishment figures. If they report unemployment, that employment dropped, that would be picked up even though somebody had a couple jobs.

Is that right?

Mr. LEVITAN. That's right. In the establishment survey they would be picked up more than once, but in the Current Population Survey they would not be.

My reference to the military was made with the assumption that they are employed in civilian jobs.

Senator McCLURE. You counted on the employment side but not the unemployment side.

Mr. LEVITAN. That's right.

Senator McCLURE. Ms. Norwood, I wanted to ask one further question of you.

The reference by BLS indicates that about half of the 3½ million increase in employment in the past year was accounted for by women.

Can you give us information as to what types of jobs these women are taking and at what levels with what—in what income groups and at what skill levels? Who are they competing with?

Ms. NORWOOD. I would be glad to provide an analysis of that for the record, with one exception, and that is that I don't think we have any data on whom they are competing with. We certainly can put in where they are.

Senator McCLURE. If you would do that, please.

Ms. NORWOOD. I would be glad to do that.

[The information referred to follows:]

EMPLOYED WOMEN BY OCCUPATION AND EMPLOYMENT INCREASES AND DECREASES, MARCH 1978 TO MARCH 1979

[Employment levels in thousands; not seasonally adjusted]

Occupation	Females, 20 yrs and over		
	March 1978	March 1979	Employment changes (percent distribution)
Total	34,817	36,592	100.0
White-collar workers	22,691	24,167	83.2
Professional and technical	6,065	6,546	27.1
Health workers	1,637	1,835	11.2
Teachers, except college	2,200	2,327	7.2
Other professional and technical	2,228	2,384	8.8
Managers and administrators, except farm	2,329	2,459	7.3
Salaried workers	1,903	2,056	8.6
self-employed workers in retail trade	280	262	−1.0
Self-employed workers, except retail trade	146	142	−.2
Sales workers	2,210	2,264	3.0
Retail trade	1,628	1,556	−4.1
Other industries	583	709	7.1
Clerical workers	12,087	12,898	45.7
Stenographers, typists, and secretaries	4,243	4,469	12.7
Other clerical workers	7,844	8,429	33.0
Blue-collar workers	5,129	5,312	10.3
Craft and kindred workers	622	646	1.4
Carpenters	15	20	.3
Construction craft, except carpenters	22	31	.5
Mechanics and repairers	34	32	−.1
Metal craft	33	31	−.1
Blue-collar worker supervisors, not elsewhere classified	144	167	1.3
All other	375	364	−.6
Operatives, except transport	3,959	3,995	2.0
Durable goods manufacturing	1,498	1,636	7.8
Nondurable goods manufacturing	1,854	1,779	−4.2
Other industries	606	581	−1.4
Transport equipment operatives	230	255	1.4
Drivers, motor vehicles	217	240	1.3
All other	13	15	.1
Nonfarm laborers	318	417	5.6
Construction	7	13	.3
Manufacturing	122	175	3.0
Other industries	189	229	2.3
Service workers	6,624	6,770	8.2
Private household workers	872	846	−1.5
Service workers, except private household	5,752	5,925	9.7
Food service workers	2,154	2,225	4.0
Protective service workers	108	121	.7
All other	3,409	3,579	5.0
Farm workers	373	342	−1.7
Farmers and farm managers	82	109	1.5
Farm laborers and supervisors	291	233	−3.3
Paid workers	126	110	−.9
Unpaid family workers	165	123	−2.4

Source: U.S. Department of Labor, Bureau of Labor Statistics.

Senator McCLURE. The last question I would like to ask I would direct to both. That is in the area of the illegal alien composition in the work force and competition for jobs.

Do you have any kind of statistics? Is that included in your sample; and, if so, do you have any confidence in the figure?

Ms. NORWOOD. I would just like to very briefly comment on that. I think that many of the people who are illegally in this country and are employed, and even those who are unemployed, are probably included in the count that we have. If they are employed, they are likely to be counted in the establishment statistics. If they are in a household that is in the sample, they are likely to be counted in the household survey.

The difficult, I think, is that there is no way to break out the group, because there is no way to ask someone if he is doing something illegally and still have him cooperate in a voluntary survey.

There have been some attempts to make evaluations of survey data on the one hand, and compare it to administrative data on the other. That is one of the things that is being done, for example, in the United Kingdom and in Ireland, and some of the European Community countries. But these comparisons must rely on some assumptions, too; that is, that these people are counted in the administrative data.

Another approach that has been taken is attempting to probe further when entering a household, to introduce questions to find out a little bit more about these people, but that also gets to a respondent burden problem.

Then, just to be sure that I mention it before my friend Mr. Levitan does, there is also the problem, of course, of the undercount of the population. The kinds of people who might well be illegally in the country often are among those missed in the population count.

Senator McCLURE. Mr. Levitan.

Mr. LEVITAN. I always agree with Ms. Norwood. Obviously we don't know how many there are. If you ask for the number, experts will say it ranges from 3 to 12 million.

Senator McCLURE. How do the experts estimate?

Mr. LEVITAN. The experts pull figures out of the air.

Senator PROXMIRE. One fascinating way they do it in New York is they find in low-income homes in New York the use of water is four times as high as it is in middle-income homes. They calculate one of the big reasons for that is because they have so many illegal aliens.

Mr. LEVITAN. Simply we don't know, Senator. The Commission tried to investigate that.

Experts make studies. As Ms. Norwood suggested, they have made all sorts of efforts. But there is no way of counting people who don't want to be counted.

Senator McCLURE. As a matter of fact, you won't in the decennial census, either.

Mr. LEVITAN. I imagine again with all the efforts the government is putting on counting some people, they may succeed to the extent that community leaders tell the folks in their neighborhoods that the information they volunteer does not go to IRS, or to the Immigration and Naturalization Service. Maybe that will yield a greater response.

But I imagine that there will still be a large undercount no matter what we do. Some people simply don't want to be counted. And if they don't want to be counted, they are not going to be counted, unless we have a police state.

Senator McCLURE. What is the cooperation—or the linkage—between your measurements and Immigration and Naturalization so far as this question is concerned?

Ms. NORWOOD. There is really none in the sense that our measurement is based upon the census. We certainly are interested in what Immigration and Naturalization is doing, but that is not reflected in our statistics.

Senator McCLURE. It seems to me that in this area this country is almost paralyzed. We find it impossible to deal with it. So we tend

to just shove it off in the corner and pretend it doesn't exist, or merely complain about it occasionally. Yet, it's a problem of massive proportions and growing larger.

I suspect one of the reasons for high unemployment among the unskilled, particularly among the minority unskilled in our society, can be attributed directly to the flood of illegal aliens because many of them lack skills.

They can move directly into those jobs that the unskilled want to have.

I have talked to many familiar with the problem. They say you can tell the illegal in the plant because he is the one who is working hard. He is also working hard because he dare not expose himself to any kind of inquiry.

I don't know how many million there are, but there are many millions of them and we are not dealing with the question at all. We are just groping at the edges of it.

I don't know that I have the answer. That is the reason I was asking you. But I look at these unemployment statistics—structural unemployment particularly—and I have to conclude that this massive illegal alien question is a very large contributor to that statistical problem, which certainly also points to very real human problems in our society.

It's something we are going to have to deal with somehow, or just say, well, anybody who can somehow cheat and get in is in. We won't encourage anybody.

In Mexico they have no welfare program that amounts to anything. They have a lot of hungry mouths and a lot of unemployed people who would like to work. On this side of the border we have both jobs available and minimum wages and minimum welfare programs. All they have to do is cross the border to increase their standard of living markedly.

It's not surprising that under those circumstances they come across the border.

Now we are so sensitive about asking anybody any questions that I suppose the ACLU doesn't like at all having people ask questions. The result is that we are not doing anything. That flood is bound to increase. When it increases it affects unemployment statistics.

Senator PROXMIRE. Let me ask you about a related problem to that that Senator McClure has raised. It leads into what you say in your prepared statement, Ms. Norwood, about off-book work.

The Wall Street Journal had an article indicating that that could be very big. It might be 1 million; it might be 10 million. It could be very large. I think for many, perhaps most babysitters, cleaning women, and a lot of jobs that pay pretty well, including fixup carpentry jobs, various jobs like that, somebody comes and says they will work for you but make it on a cash basis. That way you avoid the taxes, they avoid the taxes, you avoid withholding. With the taxes as high as they are, I suspect that there is a tremendous incentive to do that.

There is also, on the other hand, a welfare qualification, that if a person's income is at a certain level they may not qualify for welfare. They can get their welfare if they are able to get an off-book job.

Has there been any serious effort to get on top of that. These aren't illegal aliens. They are American citizens very largely, who may be

counted as unemployed and, at the same time, be doing pretty well, plus the fact that they are not paying any taxes. I'm not even mentioning the illegal operations, such as prostitution, gambling. I imagine gambling and drug selling in this country, and the number of people involved in that area must be very high. If you add to that the much higher legitimate activity but activity on which people don't go on the books, to avoid taxes, it must be very substantial indeed.

Can you give us any notion, any ballpark notion of what that might be?

Ms. NORWOOD. No, sir, I can't.

Senator PROXMIRE. How can we get at it?

Ms. NORWOOD. I think it's a fascinating and very important question. I think it is in many ways as important as the question of people who are in the country illegally. It is the off-book, or, what has been called in other countries, the black book workers which is even more important in other countries where there is a tradition against paying taxes. That was one of the reasons that the members of the Working Party 3 weeks ago were so interested in this issue and were trying to find ways of doing survey work to get at this.

But as I think Mr. Levitan pointed out, our basic problem is that a government agency, collecting statistical information, really can only collect that which people want to give it. If people have some specific reason for not giving information to you, it is very difficult to develop data.

Now what we have done, both the Bureau of Labor Statistics and the Census Bureau, is to develop reputations for the protection of the confidentiality of information so that people tend to be willing to provide us with information that they would not normally provide.

Senator PROXMIRE. That might be an important way to do it. I would hope there would be some way we could begin to get at it, if we could do it without people feeling—obviously they won't cooperate at all if they feel you are going to collect taxes from them or something of that kind. If it were done somehow anonymously so we can get some feel of these economically active people, as they are earning money but are counted as either outside the workplace or unemployed.

Mr. LEVITAN. I think I have a solution. Congress ought to pass a law prohibiting BLS from using decimal points. When you use 5.6 or 5.7, it's completely meaningless. As——

Senator PROXMIRE. Not use decimal points? What do you do, say it's 6 percent?

Mr. LEVITAN. That is as close as you'll ever get—6 percent, 6 percent. Let's quit kidding ourselves that those are exact figures.

Senator PROXMIRE. Now let me ask you about something else.

Mr. LEVITAN. I can see that the law is not going to pass.

Senator PROXMIRE. Mr. Layng very graciously agreed to remain and I apologize, but I was asking about prices for industrial raw materials and its effect on inventories.

I wondered if you or Ms. Norwood had detected much speculative buying for inventories or whether inventories are generally in line as much as they seemed to be several months ago.

Mr. LAYNG. Just based on what I have read it seems like it is more a strength of demand situation. Many markets seem to be very tight.

Demand seems to be very high and production is running very high.

Senator PROXMIRE. Is the relationship between inventories and sales still as good as it was?

Ms. NORWOOD. Yes.

Mr. LAYNG. By the same token it's very logical that with the transportation situation what it is, there was some hedge buying.

Senator PROXMIRE. How about unused plant capacity, do you have any data on that?

I realize that is a Federal Reserve Board statistic. It is one of the best indications of the demand pull situation.

Ms. NORWOOD. Wharton and others have called it very high. But we have nothing other than that.

Senator PROXMIRE. At the beginning of this year the economy seemed to be potentially overheating. Recently experts have anticipated a slowdown in real growth this quarter. What is your assessment of the situation?

Ms. NORWOOD. If one looks at the BLS figures one can say that the economy is continuing at high levels and continuing to employ more people. Certainly, I think the rates of prices increase do not show any strong diminution.

Senator PROXMIRE. So you are saying the economy is still in danger of overheating?

Ms. NORWOOD. Our data doesn't show that it's slowing down. I don't see in our data any signs of slowdown. Housing starts have declined, but industrial production is up three tenths of 1 percent or more.

Senator PROXMIRE. Late last month it was reported there are six States whose unemployment rate for insured workers unemployed, I take it, for more than 13 weeks, was over 5 percent. Therefore, the unemployed are eligible for extended payments of unemployment compensation.

Is that increase in insured unemployment for an additional four States, indicate a general trend that may reflect an upcoming increase in the national rate?

Ms. NORWOOD. Of unemployment?

Senator PROXMIRE. Yes, of long-term unemployment.

Ms. NORWOOD. The overall rate of insured unemployment has not really changed for the survey week.

Now what will happen beyond that at the national level is hard to tell. Insured unemployment, of course, only represents a portion, as you know, of the unemployed.

Senator PROXMIRE. Let me ask you a question you may or may not want to get into because it is kind of a policy question, but at the same time we value your advice, or Mr. Levitan's, which of you would be willing to give it to us.

We have on the books a provision that allows the President to put credit controls into effect. He could slow down the economy by requiring a larger downpayment, limiting the time over which you could pay for an automobile or a house. And this limitation could have quite a considerable effect.

There was an effort on the floor recently to knock that out. I made a commitment as chairman of the Banking Committee that we would

hold hearings on that, and I am very sympathetic to knocking it out. Because I think it's something we ought to either have with congressional deliberation or we ought not to have it at all.

It can have a profound effect on housing, automobile manufacturing, and so forth. At the same time, all of us are concerned about the spurt in consumer expenditures and the fact that some people may be becoming overcommitted in their debt.

Do you think credit controls could serve a beneficial influence? Could they be useful in your judgment? Could they be used in such a way so as not to increase unemployment unfairly?

Ms. NORWOOD. I think that is a very difficult question to answer. It's clear that the attempt has been to accomplish some of those results through higher interest rates. It's also clear that they have not had the kinds of effect that was anticipated.

It's very difficult to apply controls of that kind selectively. And then you get into difficulties, really, of the social effect.

Senator PROXMIRE. Right.

Ms. NORWOOD. In any kind of control situation we get into dislocations.

Senator PROXMIRE. Do you want to comment, Mr. Levitan?

Mr. LEVITAN. I would agree with that. I don't think that any controls you put in now would be effective, unless you create the machinery to enforce the law.

Senator PROXMIRE. I take it the way you frame your answer you feel this would be related to mandatory wage-price controls, the same kind of thing.

Mr. LEVITAN. If you start credit controls you should have wage and price controls. I don't know how much good it will do to have one without the other. But unless you are going to have strong policing, you are not going to achieve the goals.

Senator PROXMIRE. Thank you.

Is the hardship index designed to measure the economic distress of individuals or only the family unit?

Mr. LEVITAN. The individual is part of the family unit.

Senator PROXMIRE. Would be emphasis on the family unit, which I take it you have then.

Mr. LEVITAN. That is correct.

Senator PROXMIRE. Would that divert attention from the economic distress of secondary earners, nonhousehold heads, which would be primarily women?

Mr. LEVITAN. I hold to the old fashioned idea that families are still consumer units and share in purchasing and in buying household goods. It would not underemphasize women or men. It just means that we look at the family or household as a unit.

Senator PROXMIRE. I would think, then, if you have a situation where the husband has a job and the wife can't find a job, in that kind of a situation the hardship index wouldn't reflect the problem.

Mr. LEVITAN. It would depend on what kind of a screening level you have. Even if you use one at twice the poverty level, as we discuss in our Commission draft report, the wife in a family who earns above that income level, would still be counted as employed. That would not be eliminated.

But in that case you indicated, it would depend whether the family income is above a predetermined level and therefore she is not part of the hardship index.

Senator PROXMIRE. Ms. Norwood, would you comment on that? I think you may have other feelings, or another opinion.

Ms. NORWOOD. I think that it's clear that one of the issues involved in the development of a hardship index is the shift of emphasis from the individual to the family. There are many purposes for which the family focus can be a useful one. But I think it is extremely important to recognize that that is what we are talking about, and that the teenagers that Mr. Levitan mentioned, and the women that you mentioned, would not be affecting the hardship index if the family income were at a particular level, whatever that level of adequacy were determined to be. And that in itself is a judgment, of course.

I think it depends upon what one wants to do with the data. I think that is an important thing to look at.

I think even Mr. Levitan would agree that a hardship index is not an attempt to do the same thing as the unemployment rate as now constituted.

So we are talking about really very different purposes.

Mr. LEVITAN. Amen.

Senator PROXMIRE. Let me ask Mr. Layng, the Producer Price Index for finished goods has increased at an annual rate of 14 percent over the past 3 months making this the largest quarterly advance since the fourth quarter of 1974. While food continued to account for a significant portion of the rise, nonfood prices continued to rise at a pretty frightening rate.

What indications if any do you have, Mr. Layng, that increases in prices will moderate in coming months?

Mr. LAYNG. Other than the factors Commissioner Norwood discussed, capital equipment and consumer durable goods, and the crude nonfood materials, those are the only favorable indicators there are in the March data that the rate may be beginning to decelerate.

Senator PROXMIRE. Would you care to make, or would you make even if you don't care to do it, an educated guess as to what the increase in prices will be for 1979 calendar year?

Mr. LAYNG. For the year?

Senator PROXMIRE. On the basis of our experience so far.

Mr. LAYNG. I'm not supposed to do that. I don't use a systematic procedure to try and estimate it.

What we have done before for the committee is try to look at the expected rate of increase for the year, and what it would have to be for the rest of the year to achieve that. It is obvious that to achieve the rate specified in the Economic Report of the President, we would have to have a very substantial deceleration.

Senator PROXMIRE. So that was about 7.5 percent?

Mr. LAYNG. I believe a little less than that. About 7.5 when the report was written.

Senator PROXMIRE. It appears now much less likely we will get it in view of the large increases in the first quarter of the year.

Mr. LAYNG. Much more difficult.

Ms. NORWOOD. We of course have to take account of the large increase in oil prices we know are ahead of us.

Senator PROXMIRE. We are all concerned about the Three Mile Island reactor. If it were necessary to shut down all the nuclear plants in the country what effect would this have on output and employment nationally?

Ms. NORWOOD. That is, as I am sure you are aware, a very difficult question to answer. Our information is that there are roughly 500 people or so employed at Three Mile Island. Interestingly enough it appears they are still employed and that in fact the cleanup process for the plant may mean an addition to employment.

There are probably somewhere around 15,000 to 20,000 people employed and operating nuclear establishments. I should hasten to add that these are Department of Energy figures, not BLS figures.

Senator PROXMIRE. That would be relatively minor of course. I was thinking of the indirect effects which could be I would think rather substantial, particularly on the people who produce for this great industry.

In General Electric, for example, there must be hundreds of thousands of people who are producing material and equipment and so forth that would go into a nuclear plant.

Ms. NORWOOD. Yes; the work force just to construct the plant and equipment is very great.

But then there is the other side, Senator Proxmire, and that is the electricity that is produced. Nuclear plants account for something like 10 or 12 percent of the total generation of electricity. There will be a regional effect because some regions are affected more than others, and there would be a price effect.

This certainly can be translated into barrels of oil. We don't know whether that means that there would be more importation of oil, whether there would be some kind of allocation within the private sector as between households and private industry.

Senator PROXMIRE. I understand there are 70 present plants, 90 under construction and they account for between 12 and 16 percent of our electricity. So shutting them down would have an infinitely more profound indirect effect of course than the people working in them.

What effect on employment would result from mandatory rationing, or limiting an automobile to say no more than 15 gallons a week? What about the employment effects and also closing gas stations for weekends?

Ms. NORWOOD. We don't have any estimate.

Senator PROXMIRE. On the basis of our experience in 1974 in closing gas stations on weekends can you give us any notion of what effect that has on unemployment?

Ms. NORWOOD. Not really. We can certainly look at that.

I think it is important to recognize that the 1974 closings occurred at a different time of the year. There are some seasonal effects that would be very different. It also occurred at a different period in the business cycle so it is very hard to make any estimates.

Senator PROXMIRE. The real question that I think stumps so many of us is the fact that inflation has been so bad for a long time and has been getting worse lately, yet inflation doesn't seem to have stemmed demand. You would think that these higher prices would be discouraging to people.

Historically, has there been any connection between rising prices and reduction in demand followed by unemployment? Do we have enough experience to make a judgment as to whether that would be likely now?

Ms. NORWOOD. I think that one really has to look at the changes that have occurred in the economy. We certainly have not had an inflationary situation before of the kind we now have. The built-in expectations, the kinds of demand pressures, are different now. The composition of the labor force is also very different.

Your staff raised a question about whether our previous historical experience is tremendously relevant to that. I really don't think it is. The leading indicators have been going down 3 months, except that one of them was revised upward.

There were 17 times that the leading indicators declined 3 months. Of those 17 times, except for 1977, within 1 to 3 months following a 3-month decline of the indicators, there was an increase in unemployment. Not a recession necessarily, but an increase in unemployment.

Senator PROXMIRE. Now, we have had a decline in the indicators for 2 months. If we have a decline this coming month, that would indicate the likelihood, based on historical experience, that we would have an increase in unemployment.

Ms. NORWOOD. Well, in 1977 that did not occur. I think there are two questions.

One is our economic conditions, composition of the labor force, inflationary expectations, and so on. Are they so different that this would be an unexpected development?

Then the other is the leading indicators themselves. You are fully aware. I am sure, of the money supply problem, measurement, definition, and so on. That has some effect.

Senator PROXMIRE. Well, the difficulty with the money supply problem that Parren Mitchell was raising is that everybody now recognizes that those monetary aggregates are just as unsound as they can be. We have changed the nature of our system of money, really, by using savings accounts as transactional accounts. You are able to move instantaneously your money out of your savings account into your demand account. We have no idea how many people are doing that.

The 6-month certificates have distorted it very much. The relation between interest rates and inflation has made that index a very hard one to judge. So we are really moving in the dark on that. Let me ask you how——

Ms. NORWOOD. But they are in the indicators.

Senator PROXMIRE. Yes; I see your point.

Housing starts have dropped in January and February from the 2 million level to about 1.5 million, a very big drop. Yet you are reporting an increase in construction employment. How do you explain that?

Ms. NORWOOD. The drop in housing starts, of course, has been for single-family homes. Multifamily structures and commercial structures have actually gone up.

In addition, I think that our construction employment reflected in past months the very bad weather situation, and now we have had improved weather and there are a lot of structures that were begun which need to have work done to be completed.

Of course, the weather itself caused problems with our roads and other things. I am sure there are people going around filling up pot holes as well as building new structures.

Senator PROXMIRE. Well, the problems with the fourth quarter were sensational. They were tremendously high. They have been both criticized and praised.

What effect does an increase in profits have on employment? What has been that experience?

Ms. NORWOOD. That is difficult to determine. They have been large, but profits tend to be very volatile. You know, we have to recognize, as I am sure sure you do, that this is a percentage that starts with a very small base. Therefore, a small increase may make the percentage jump way up. The addition, the series has a large variance.

I guess the relationship to employment really depends upon what is done with those profits, to what use they are put. If what it really means is an increased rate of return on investment and that stimulates further investment, depending upon where that investment goes, we might have a good effect on employment.

Senator PROXMIRE. By and large, profits have always been viewed as a very optimistic measure, even if they don't go into investment as you say, they tend to encourage business to be more expansive. And they should encourage business, if a business is profitable, so that they will expand and hire more people; isn't that right?

Ms. NORWOOD. Yes. We don't know much about the speed with which this occurs.

Senator PROXMIRE. What has been the increase—maybe Mr. Layng could tell us—the increase in gasoline prices over the last 3 months on an annual rate? Have you annualized that?

Mr. LAYNG. Oh, I would say roughly, it is in excess of 30 percent.

Senator PROXMIRE. In excess of 30 percent?

Mr. LAYNG. Yes; over the last 3 months, since December. It is up in simple terms 8½ percent. Roughly four times that would be over 30.

Senator PROXMIRE. Mr. Levitan, I have just a couple questions I would like to ask you. The hour is late. I will try to be as brief as I can.

First, the final recommendations have not been made. Can you give us an idea as to the overall net cost of the implementation of your recommendations?

Mr. LEVITAN. No; I cannot because we are waiting for estimates of the costs.

Senator PROXMIRE. I have been told you estimate about $50 million, others estimate about $75 million.

Mr. LEVITAN. As far as my spending ability is concerned, I would stop at $50 million.

Senator PROXMIRE. $50 million would be the bottom figure?

Mr. LEVITAN. No; that is the top. I think any recommendations that would raise costs over $50 million should be delayed for some future date.

Senator PROXMIRE. Would the total effect of the recommendations on the unemployment rate be to raise or lower it, or would it be about the same?

Mr. LEVITAN. I am not being evasive, Senator, but it depends. If we excluded the 16- and 17-year-olds, it would be less. If we included discouraged workers, it would be more. If we included the military, it would decrease unemployment by 0.1 of a percent.

On the whole, it would seem that since recommendation to exclude the 16- and 17-year-olds from the adult unemployment count is not

likely to be endorsed by a majority of the Commission, and if the recommendations to include discouraged workers and the military are endorsed, the former would add 0.2 of a percent to the unemployment rate and the latter would reduce it by 0.1. So the result is an unemployment rate that is 0.1 percent higher.

Senator PROXMIRE. What are the arguments in favor—I realize that you are on the other side. What are the arguments in favor of the alternative use of several disaggravated indexes rather than a single index to measure hardship?

Mr. LEVITAN. It will help somewhat to look at the labor market but——

Senator PROXMIRE. Will you give me the arguments in favor.

Mr. LEVITAN. Apparently they look at different parts of the animal, and make judgments about each part. I prefer to look at the whole animal.

Senator PROXMIRE. Well, sometimes it is better to look at the separate parts.

Mr. LEVITAN. I doubt whether that will offer a picture of the elephant or the donkey.

Senator PROXMIRE. That is all you can say in favor of the disaggregated indexes?

Mr. LEVITAN. Yes, that is all I can say in favor of them until I see what the measurements look like.

Senator PROXMIRE. Let me just ask——

Mr. LEVITAN. Excuse me, Professor Cain and Mr. Moscow are preparing some proposals that I haven't seen yet.

Senator PROXMIRE. I see.

Mr. LEVITAN. They may come up with a new revelation. I'm waiting with bated breath but I'm not hoping for too much.

Senator PROXMIRE. Ms. Norwood, one of the best and most encouraging elements here in addition to the fact that the fusion continues to be favorable is the pattern of discouraged workers. That has been going down very steadily.

Ms. NORWOOD. Yes.

Senator PROXMIRE. That seems to be quite encouraging, much more encouraging than just the flat report on the unemployment figures. There seem to be fewer figures including blacks and others who are discouraged workers.

What is your reaction to that? Is that truly a substantial index on which we can rely, and does it indicate—it shows quarter after quarter a lower number of discouraged workers. Does that indicate that we are continuing to do well?

Ms. NORWOOD. Well, I'm sure you are aware of the problems of definition. But setting that aside for the moment, I think the steady decline is an important development. I think it is what we would expect when we look at the labor force entries.

What has been happening is that as employment has increased, more and more people have come into the labor force. Many of the people who have come into the labor force have been people who were out of the labor force before because they didn't think there was any opportunity to get a job. They no longer feel that way.

Senator PROXMIRE. I want to thank both of you very much. You are two distinguished public servants. I should say you are four distin-

guished public servants. I am delighted to have you before us. As usual you have been most responsive and you have made a fine record.

Ms. NORWOOD. Thank you.

Mr. LEVITAN. Thank you, sir.

The progress report from the Commission would not be complete if I did not acknowledge the excellent help we received from Ms. Norwood, Mr. Stein, and their staff. We could not have completed this report without their active cooperation and help.

Senator PROXMIRE. Thank you very, very much. We are delighted to have that for the new Commissioner.

The committee will stand adjourned.

[Whereupon, at 12:25 p.m., the committee adjourned, subject to the call of the Chair.]

[The following information was subsequently supplied for the record:]

U.S. DEPARTMENT OF LABOR,
COMMISSIONER FOR BUREAU OF LABOR STATISTICS,
Washington, D.C., May 21, 1979.

Hon. WILLIAM PROXMIRE,
U.S. Senate,
Washington, D.C.

DEAR SENATOR PROXMIRE: At the April meeting of the Joint Economic Committee, you asked the Bureau of Labor Statistics to examine the impact of retail prices of gasoline and home heating oil on the President's policy to decontrol crude oil prices. The results of this examination appear in the enclosed table. Let me describe them briefly.

First, all our impact estimates are based on the estimated changes in crude oil prices that appeared in Mr. Schultze's testimony of April 25 before the Subcommittee on Energy of the Joint Economic Committee. This testimony contained two sets of crude oil prices—the first based upon an assumed increase in world oil prices of 7 percent per year and the second on an assumed 10 percent increase per year. We used these crude oil prices to estimate the direct impact on retail gasoline and home heating oil prices under two different price transmission mechanisms. The first assumes the percentage margins are maintained in the distribution (not production) of these products. The second assumes that only the dollar and cent increases stemming from increases in crude oil prices are passed through to retail prices, i.e., percentage margins decline.

The enclosed table presents estimates of the direct impact of the President's policy, the policy that existed prior to the President's policy, and the difference between them. For example, in the case which assumes a 7 percent increase in world crude oil prices and constant percentage margins, retail gasoline prices would increase 19.9 cents per gallon between March 1979 and the fourth quarter of 1982 under the President's plan and 14.5 cents per gallon if the President's plan were not put into effect. The difference between the two estimates of 5.4 cents is consistent with what has been presented on the impact of he President's policy by the Administration. The results also appear to be generally consistent with estimates presented by the Congressional Budget Office and the Subcommittee on Energy and Power of the Houses Committee on Interstate and Foreign Commerce.

We have also included estimates of the impact of these changes in retail gasoline and home heating oil prices on the U.S. All Items Consumer Price Index. It should be noted that these estimates reflect only the direct impact of increases in retail prices of gasoline and home heating oil. The indirect effects of increases in crude oil prices on prices of other products, such as plastics, drugs, chemicals, or transportation services, are not included.

I hope these estimates are useful to you. If you have any questions concerning them, please do not hesitate to contact me.

Sincerely yours,

JANET L. NORWOOD,
Commissioner.

Enclosure.

ESTIMATED DIRECT IMPACT OF CRUDE OIL POLICIES ON THE CONSUMER PRICE INDEX (CPI)

	All items CPI–U percent change, March 1979 to 4th quarter 1982	Gasoline average price, 4th quarter 1982	Difference, March 1979 to 4th quarter 1982	Fuel oil average price, 4th quarter 1982	Difference, March 1979 to 4th quarter 1982
Constant distributors margins:[1]					
Case I (7 percent):[2]					
President's policy	1.424	$0.932	$0.199	$0.790	$0.185
Previous policy	1.035	.878	.145	.739	.134
Effect	.385		.054		.051
Case II (10 percent):[3]					
President's policy	1,844	.991	.258	.844	.239
Previous policy	1.383	.927	.194	.785	.180
Effect	.455		.064		.059
Dollar and cents pass through:[4]					
Case I (7 percent):[2]					
President's policy	1.006	.872	.139	.744	.139
Previous policy	.731	.834	.101	.706	.101
Effect	.273		.038		.038
Case II (10 percent):[3]					
President's policy	1.303	.913	.180	.785	.180
Previous policy	.977	.868	.135	.740	.135
Effect	.323		.045		.045

[1] Assumes increased retail prices will include increased crude oil costs plus a constant margin.
[2] Assumes world crude oil prices increase 7 percent per year.
[3] Assumes world crude oil prices increase 10 percent per year.
[4] Assumes increased retail prices will include increased crude oil costs only.

Source: Bureau of Labor Statistics, U.S. Department of Labor.

EMPLOYMENT-UNEMPLOYMENT

FRIDAY, MAY 4, 1979

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to notice, at 10 a.m., in room 318, Russell Senate Office Building, Hon. Lloyd Bentsen (chairman of the committee) presiding.

Present: Senators Bentsen and Proxmire.

Also present: John M. Albertine, executive director; William R. Buechner, Paul B. Manchester, and M. Catherine Miller, professional staff members; Katie MacArthur, press assistant; Mark Borchelt, administrative assistant; and Mark R. Policinski, minority professional staff member.

OPENING STATEMENT OF SENATOR BENTSEN, CHAIRMAN

Senator BENTSEN. It is 10 o'clock. This hearing was scheduled for this time, and we will come to order.

There are really conflicting statistics in this month's employment figures, Commissioner Norwood. The household survey shows we lost a staggering 670,000 jobs, while the payroll survey shows little change.

That muddies the water a little, but it shows that the good times of the last 8 months, with the number of jobs increasing at a clip of 300,000 a month, the good times are over.

The only question remaining, it seems to me, is whether this report signals the start of a long slide into recession or whether it only represents a 1-month phenomenon that will be corrected in May.

What seems especially troubling is the timing. We have a marginal increase of unemployment in April from 5.7 to 5.8 percent. April, for the past few years, has been a good month on the jobs front. We have become accustomed to April being good news at these employment hearings. And I will ask you to comment on that in a moment if you will.

We had more bad economic news yesterday as well. The Producer Price Index indicated that we can expect double-digit inflation to continue for a while. It increased at an annual rate of 11.5 percent, and that is discouraging.

As you know by now, we are always glad to have you with us, Commissioner Norwood. But I look forward with some concern to your testimony this morning. I hope you will be able to encourage us in what you have to testify on for the economic outlook for the country. You may proceed.

STATEMENT OF HON. JANET L. NORWOOD, ACTING COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY W. JOHN LAYNG, ASSISTANT COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND ROBERT L. STEIN, ASSISTANT COMMISSIONER, OFFICE OF CURRENT EMPLOYMENT ANALYSIS

Ms. NORWOOD. Thank you, Senator Bentsen.

I am glad to have this opportunity to offer the Joint Economic Committee a few brief comments to supplement our Employment Situation press release, issued this morning at 9 a.m., and our Producer Price Index press release, issued yesterday morning.

Employment, as measured by the household survey, declined sharply in April, the labor force decreased, and unemployment remained virtually unchanged. The unemployment rate was 5.8 percent in April, about the same as it has been for the past 8 months. The employment-population ratio dropped to 59, returning to the level prevailing in the fourth quarter of 1978. Following the unusually rapid expansion of employment from December 1978 to March 1979, totaling about 1 million, employment fell by 670,000.

The establishment survey, on the other hand, showed no significant change in April in the number of employees on nonfarm payrolls. Prior to April, payroll employment had been rising by an average of more than 300,000 jobs per month in 1979.

Thus, the household survey showed a sharp drop in employment, while the establishment survey reflected a slowdown in employment growth between March and April. Part of this divergence can be explained by declines totaling about 350,000 in agriculture, domestic service, and nonfarm self-employment, sectors included in the household survey, but not covered by the employment drop recorded by the payroll survey. Even with these worker groups excluded, however, the employment drop recorded by the household survey was unusually large and, in part at least, may be attributable to sampling variability or other measurement problems.

Establishment survey data on employment and hours of work in April are also difficult to interpret because of the effects of the labor-management dispute in the trucking industry. Employment in the durable goods manufacturing industries, which had been rising in prior months, edged down in April, probably as the result of layoffs in the automobile and related industries. Average weekly hours of production and nonsupervisory workers were also affected by the dispute, as well as by the occurrence of religious holidays in the survey period and unusually bad weather in some areas of the country.

A further complication is that the March–April drop in employment, as reported in the household survey, was not accompanied by any significant increase in unemployment since there was also a large decline over the month in the number of people in the labor force. Survey data on the labor force fluctuate considerably from time to time, and I believe that at least part of the employment drop should be discounted as a statistical aberration. The unemployment rates for adult workers (both men and women), which are usually good indi-

cators of cyclical developments, were unchanged between March and April.

Despite the employment slowdown in April, payroll employment was 2.9 million above its April 1978 level, and the unemployment rate was 0.3 percentage point below the level of a year earlier.

In summary, the labor force, total employment, and average weekly hours declined in April, while nonfarm payroll employment and unemployment were little changed. The figures were affected by a number of special factors such as the labor dispute in the trucking industry, holidays in the survey period, bad weather, and possible measurement problems in the household survey estimates of the labor force. The figures for this month show some slowdown in employment growth, but a more definitive reading will have to await the compilation of data for at least 2 or 3 additional months.

PRICES

Yesterday, the Bureau released Producer Price Indexes for April. The Finished Goods Price Index rose 0.9 percent, not much different from the monthly average 1 percent increases of the previous 4 months. There were, however, substantial differences from previous months for many products. Prices for consumer foods at the producer level declined slightly in April, following 7 months of very large increases. Fresh vegetable prices declined sharply for the second consecutive month, and beef and veal prices rose more slowly than they have in recent months.

In the nonfood commodities areas, prices of many items rose more rapidly than last month. Although price increases were especially sharp among refined petroleum products, substantial increases occurred in other areas as well. The price index for finished consumer goods other than food rose 1.4 percent, which is as large an increase as this series has shown in more than 4 years. Gasoline, home heating oil, and passenger car price rises were major contributors to the increase. The index for capital equipment advanced 1.1 percent, following smaller increases in March and February. Motor truck, construction machinery, and agricultural machinery prices all rose more than last month.

At the intermediate or semifinished stage of production, the price situation deteriorated somewhat from March to April. Prices of semifinished materials rose 1.5 percent in April, compared with monthly increases of about 1 percent during the first 3 months of this year.

Some of the largest increases were for products derived from petroleum, such as fuels, plastics, and chemicals. In addition, prices for many other products used in manufacturing and construction continued to rise in April. This was particularly true for primary nonferrous metals, which have increased at a seasonally adjusted annual rate of 71.4 percent so far this year.

Prices of crude materials, on the other hand, declined 0.4 percent, the first decline since August 1977. Price declines occurred for both food and nonfood items. The largest decreases in crude nonfood materials occurred in iron and steel scrap and hides and skins, both of which had risen substantially in recent months.

In summary, I believe it is clear that a considerable amount of upward pressure still existed in the nonfood sector of the economy in April. The food situation, on the other hand, improved considerably, both in terms of consumer finished food prices and crude food prices. This improvement should be reflected at the retail level quickly. Unfortunately, the situation is far less encouraging in the nonfood area.

PRODUCTIVITY

Earlier this week, the Bureau published the preliminary first quarter data on productivity and labor costs. Productivity in the private business economy declined sharply from the fourth quarter of last year—4½ percent at an annual rate. This decline, coupled with an 11-percent increase in hourly compensation, resulted in a rise in unit labor costs of over 16 percent.

The decline in productivity in the first quarter reflected a very small gain in output, small despite a very strong expansion in employment. The situation was similar to that which occurred in the first quarter of last year; severe winter weather contributed to the downturn in both years.

The manufacturing sector, which did better than the overall private business sector last year, also experienced a decline in the first quarter this year, but the decline in manufacturing was much smaller than for the total economy and was associated with a strong gain in production. All of the productivity decline in manufacturing came from the durable goods component.

The first quarter decline for the entire private business sector continues the slowdown in productivity growth which has been taking place since the mid-1960's and particularly over the last 5 years. Over the entire year, that is, from the first quarter of last year to the first quarter of this year, productivity grew only four-tenths of 1 percent. This poor productivity performance poses problems for the future.

WAGES

Average hourly compensation, the broadest earnings measure which includes wages and fringe benefits, rose more than 9 percent over the last year, and the hourly earnings index rose nearly 8 percent. Because prices rose at a still higher rate, real earnings fell.

First quarter 1979 collective bargaining was the lightest in more than a decade, covering only 262,000 workers. Total increases, reported in a BLS release last week, over the life of the contracts averaged 6.6 percent annually.

The existence of cost-of-living escalator clauses influenced the size of settlements. In settlements with such clauses, the negotiated adjustments averaged 5.2 percent over the life of the contracts. In settlements without such escalator clauses, the negotiated wage adjustments averaged 8.3 percent over the life of the contracts.

During the first quarter of this year, escalator clauses triggered wage increases that average 2 percent for workers actually receiving them. These increases recovered about 62 percent of the rise in consumer prices.

In conclusion, BLS data covering the first quarter of the year show very poor productivity performance and a change in average hourly compensation in the 10 to 11 percent range, but with almost no change in real terms. Data for April show continued upward pressure on prices in the nonfood sector, and a slowdown in employment growth.

My colleagues and I will now be glad to try to answer any questions you may have.

[The table attached to Ms. Norwood's statement, together with the Employment Situation press release referred to, follows:]

UNEMPLOYMENT RATES BY ALTERNATIVE SEASONAL ADJUSTED METHODS

Month and year	Unadjusted rate	Standard X-11 method					X-11 ARIMA method		Range (cols. 2-8)
		Official	Concurrent	Stable	Total	Residual	Extrapolated	Concurrent	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978:									
April	5.8	6.1	6.1	6.0	6.0	6.1	6.1	6.1	0.1
May	5.5	6.1	6.1	6.2	6.2	6.2	6.1	6.1	.1
June	6.2	5.9	5.9	5.8	5.9	5.8	5.8	5.8	.1
July	6.3	6.1	6.1	6.1	6.2	6.2	6.1	6.1	.1
August	5.8	5.9	5.9	5.9	5.9	6.0	5.9	5.9	.1
September	5.7	5.9	5.9	5.9	5.9	6.0	5.9	5.9	.1
October	5.4	5.8	5.8	5.8	5.8	5.9	5.8	5.8	.1
November	5.5	5.8	5.8	5.8	5.7	5.8	5.8	5.8	.1
December	5.6	5.9	5.9	6.0	5.8	6.0	5.9	5.9	.2
1979:									
January	6.4	5.8	5.8	5.8	5.7	5.5	5.8	5.8	.3
February	6.4	5.7	5.7	5.7	5.7	5.5	5.7	5.8	.3
March	6.1	5.7	5.7	5.8	5.7	5.6	5.7	5.8	.2
April	5.5	5.8	5.8	5.7	5.7	5.8	5.8	5.8	.1

Source: U.S .Department of Labor, Bureau of Labor Statistics, May 1979.

NOTES TO TABLE COLUMN NUMBERS

(1) *Unadjusted rate.*—Unemployment rate not reasonally adjusted.

(2) *Official rate (standard X–11 method).*—The published seasonally adjusted rate. Each of the 3 major labor force components—agricultural employment, nonagricultural employment and unemployment data—for 4 age-sex groups (males and females under and over 20 years of age) are separately adjusted then added to derive seasonally adjusted total figures. Teenage unemployment and nonagricultural employment are adjusted by the standard X–11 method's additive option, whi'e all other series are adjusted by the multiplicative option. Adult male unemployment is adjusted multiplicatively using the prior trend adjustment feature of the X–11. The rate is computed by adding the 12 components to a civilian labor force total, and dividing and derived civilian labor force into the unemployment total. These series are revised at the end of each year. Factors for the current year are computed at the beginning of the year for the 12 succeeding months, and published in advance.

The current "implicit" factors for the overall unemployment rate, derived by dividing the original unemployment rate by the seasonally adjusted rate for the months of 1978, are:

Jan	111.1	July	102.1
Feb	112.0	Aug	98.5
Mar	106.7	Sept	97.3
Apr	94.6	Oct	93.1
May	89.5	Nov	95.7
June	105.6	Dec	95.5

(3) *Concurrent (standard X–11 method).*—The procedure for computation of the official rate is followed, except that the data are re-seasonally adjusted by the standard X–11 method each month as the most recent data becomes available, i.e., the rate for January 1979 is based on adjustment of data for the period,

January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are as revised to incorporate experience through December 1978.

(4) *Stable (standard X–11 method).*—The stable seasonal option of the standard X–11 method uses final seasonal factors computed as an unweighted average of all seasonal-irregular ratios for the entire span of the period, January 1967–December 1978. In essence, this procedure assumes that seasonal patterns are relatively constant from year-to-year. The unweighted average is updated and series revised at the end of each year.

(5) *Total (standard X–11 method).*—This is an alternative aggregation procedure, in which total unemployment and labor force levels are directly adjusted by the standard X–11 (multiplicative option) to derive the rate. The series are revised at the end of each year.

(6) *Residual (standard X–11 method).*—The labor force and employment levels are adjusted directly, with the level of unemployment derived as a residual. The rate is computed by dividing the residual unemployment level by the directly adjusted civilian labor force. The series are revised at the end of each year.

(7) *Extrapolated (X–11 ARIMA method).*—Data for the 12 component groups of the unemployment rate are estimated using ARIMA (autoregressive, integrated, moving average) models. The enlarged series is then seasonally adjusted with the X–11 program, and the rates are computed as in the official procedure. The series are revised at the end of each year. Factors for the current year are extrapolated at the beginning of the year for the 12 succeeding months.

(8) *Concurrent (X–11 ARIMA).*—The procedure for computation of the X–11 ARIMA rate is followed, except that the data are re-seasonally adjusted each month as the most recent data become available, i.e., the rate for January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are revised to reflect experience through December 1978.

Methods of Adjustment.—The standard X–11 method was developed by Julius Shiskin at the Bureau of the Census. The method is described in X–11 Variant of the Census Method II Seasonal Adjustment Program, by Julius Shiskin, Alan Young, and John Musgrave. (Technical Paper No. 15, Bureau of the Census, 1967).

The X–11 ARIMA method was developed at Statistics Canada by Estela Bee Dagum and is the official method for seasonally adjusting the Canadian labor force series. A general description of the method is contained in A Comparison and Assessment of Seasonal Adjustment Methods for Employment and Unemployment Statistics, by Estela Bee Dagum (Background Paper No. 5, U.S. National Commission on Employment and Unemployment Statistics, February 1978).

News United States Department of Labor

Bureau of Labor Statistics Washington, D.C. 20212

Contact: John Bregger (202) 523-1944
523-1371
Kathryn Hoyle (202) 523-1913
523-1208

USDL 79-322
TRANSMISSION OF MATERIAL IN THIS RELEASE IS EMBARGOED UNTIL 9:00 A.M. (EDT), FRIDAY, MAY 4, 1979

THE EMPLOYMENT SITUATION: APRIL 1979

Total employment fell in April and unemployment remained near recent levels, the Bureau of Labor Statistics of the U. S. Department of Labor reported today.

The total employment measure--from the monthly survey of households--declined by 670,000 in April to 96.2 million. This drop followed 8 months of strong growth, with average monthly gains of 300,000 recorded during the period. In contrast, nonfarm payroll employment--as measured by the monthly survey of establishments--was about unchanged over the month at 88.3 million. Several special factors (discussed later) may account, at least in part, for the April survey results.

The overall unemployment rate was 5.8 percent in April. It has hovered around that mark for the past 9 months.

Unemployment

Both the number of unemployed, 5.9 million, and the unemployment rate, 5.8 percent, remained at about the levels which have been in evidence since August 1978. The jobless rates for adult men (4.0 percent) and adult women (5.7 percent) were exactly the same as in March, while the rate for teenagers increased by a full percentage point to 16.5 percent. Unemployment rates for whites (4.9 percent) and blacks (11.8 percent) and most other worker groups were at or near the levels which have prevailed over the past several months. Since April of last year, the overall unemployment rate has edged down by three-tenths of a percentage point. (See tables A-1 and A-2.)

The median duration of unemployment in April (5.2 weeks) was about half a week shorter than in March, reflecting an over-the-month increase in the number of persons jobless for less than 5 weeks. (See table A-4.)

Total Employment and the Labor Force

Following 8 months of strong growth, total employment fell sharply in April. The March-to-April employment decline totaled 670,000. The reasons for this slowdown in employment growth are not entirely clear but may relate, in part, to adverse weather conditions, school and religious holiday effects, and the trucking strike/lockout.

April job levels (seasonally adjusted) were down for adult men, women, and teenagers, as well as for both whites and blacks. Employment declines were heavily concentrated among blue-collar operatives, except transport, and farm workers. Because of the strong job gains registered in earlier months, total employment in April was 2.5 million higher than a year earlier. Virtually all of the over-the-year employment growth occurred within the white-collar occupations. (See tables A-1 and A-3.)

Table A. Major indicators of labor market activity, seasonally adjusted

Selected categories	Quarterly averages					Monthly data		
	1978				1979	1979		
	I	II	III	IV	I	Feb.	Mar.	Apr.
HOUSEHOLD DATA	Thousands of persons							
Civilian labor force	99,263	100,127	100,753	101,524	102,475	102,527	102,714	102,111
Total employment	93,084	94,099	94,726	95,615	96,596	96,647	96,842	96,174
Unemployment	6,179	6,028	6,027	5,908	5,878	5,881	5,871	5,937
Not in labor force	58,741	58,478	58,482	58,398	58,095	58,012	58,105	58,815
Discouraged workers	914	851	853	760	724	N.A.	N.A.	N.A.
	Percent of labor force							
Unemployment rates:								
All workers	6.2	6.0	6.0	5.8	5.7	5.7	5.7	5.8
Adult men	4.5	4.2	4.1	4.0	4.0	4.0	4.0	4.0
Adult women	6.0	6.1	6.1	5.8	5.7	5.7	5.7	5.7
Teenagers	16.9	16.1	16.1	16.3	15.8	16.1	15.5	16.5
White	5.4	5.2	5.2	5.1	5.0	4.9	5.0	4.9
Black and other	12.4	12.1	11.7	11.5	11.4	11.9	11.2	11.8
Full-time workers	5.7	5.5	5.5	5.2	5.2	5.2	5.1	5.3
ESTABLISHMENT DATA	Thousands of jobs							
Nonfarm payroll employment	84,262	85,677	86,115	86,963	87,861p	87,818	88,241p	88,312p
Goods-producing industries	24,766	25,376	25,478	25,857	26,241p	26,199	26,413p	26,397p
Service-producing industries	59,495	60,302	60,637	61,106	61,620p	61,619	61,827p	61,915p
	Hours of work							
Average weekly hours:								
Total private nonfarm	35.7	36.0	35.8	35.9	35.8p	35.7	35.9p	35.4p
Manufacturing	40.2	40.6	40.4	40.6	40.7p	40.7	40.8p	39.1p
Manufacturing overtime	3.6	3.6	3.5	3.7	3.8p	3.8	3.8p	2.7p

p-preliminary. N.A.-not available.

The civilian labor force declined by 600,000 over the month to 102.1 million but was still 2.4 million higher than April 1978. At 63.5 percent, the civilian labor force participation rate was 0.4 percentage point below its March level, but up 0.5 percentage point from the year-ago level. (See table A-1.)

Industry Payroll Employment

Nonfarm payroll employment was about unchanged over the month at 88.3 million, seasonally adjusted. Job gains took place in only 49 percent of the 172 industries comprising the BLS diffusion index, the lowest proportion in 2 1/2 years. (See tables B-1 and B-6.) As already noted, however, there were several special factors contributing to the employment and hours picture in April. Prior to April, payroll employment had been growing almost continuously. Jobs have increased by 2.9 million, or 3.4 percent, over the year.

In the goods-producing industries, employment in manufacturing, construction and mining were all essentially unchanged. Within manufacturing, employment in the non-electrical machinery industry continued to climb, while the transportation equipment industry was adversely affected by interruptions in deliveries.

In the service-producing sector, the largest monthly increase was in the services industry (55,000), which has also accounted for a disporportionate share of payroll employment growth over the past year. In addition, employment continued to rise in trade and finance, insurance, and real estate. A substantial decline in transportation and public utilities (65,000) was primarily the result of strike activity.

Hours

The average workweek of production or nonsupervisory workers on private nonagricultural payrolls was 35.4 hours in April, down 0.5 hour from the March level. This brought weekly hours to a record low, but the strike/lockout, religious observances, and, to some extent, widespread flooding and tornadoes caused the workweek of many employees to be temporarily curtailed. Because the effects of the truckers' strike/lockout were concentrated in manufacturing, the factory workweek experienced an especially sharp dip of 1.7 hours to 39.1 hours. Similarly, factory overtime dropped by more than an hour, to 2.7 hours, and the decline was even larger in durable goods. (See table B-2.)

Reflecting the almost constant level of employment and the decline in weekly hours between March and April, the index of aggregate weekly hours of production or nonsupervisory workers on private nonfarm payrolls fell 1.7 percent to 122.6 (1967=100). The index was 1.8 percent above its year-earlier level. (See table B-5.)

Hourly and Weekly Earnings

Average hourly earnings of production or nonsupervisory workers on private nonfarm payrolls posted a very slight decline over the month (0.2 percent) and were 7.7 percent above the April 1978 level (seasonally adjusted). Average weekly earnings fell 1.6 percent over the month and were 5.6 percent above the year-earlier level.

Before adjustment for seasonality, average hourly earnings were $6.02 in both March and April, 43 cents above April 1978. Average weekly earnings were $211.30, $3.61 lower than in March but $11.18 higher than a year earlier. (See table B-3.)

The Hourly Earnings Index

The Hourly Earnings Index--earnings adjusted for overtime in manufacturing, seasonality, and the effects of changes in the proportion of workers in high-wage and low-wage industries--was 226.6 (1967=100) in April, 0.6 percent higher than in March. The index was 7.8 percent above April a year ago. During the 12-month period ended in March, the Hourly Earnings Index in dollars of constant purchasing power declined 2.0 percent. (See table B-4.)

Explanatory Note

This release presents and analyzes statistics from two major surveys. Data on labor force, total employment, and unemployment (A tables) are derived from the Current Population Survey—a sample survey of households which is conducted by the Bureau of the Census for the Bureau of Labor Statistics. Beginning in September 1975, the sample was enlarged by 9,000 households in order to provide greater reliability for smaller States and thus permit the publication of annual statistics for all 50 States and the District of Columbia. These supplementary households were added to the 47,000 national household sample in January 1978; thus the sample now consists of about 56,000 households selected to represent the U.S. civilian noninstitutional population 16 years and over.

Statistics on nonagricultural payroll employment, hours, and earnings (B tables) are collected by the Bureau of Labor Statistics, in cooperation with State agencies, from payroll records of a sample of approximately 165,000 establishments. Unless otherwise indicated, data for both statistical series relate to the week containing the 12th day of the specified month.

Comparability of household and payroll employment statistics

Employment data from the household and payroll surveys differ in several basic respects. The household survey provides information on the labor force activity of the entire civilian noninstitutional population, 16 years of age and over, without duplication. Each person is classified as either employed, unemployed, or not in the labor force. The household survey counts employed persons in both agriculture and nonagricultural industries and, in addition to wage and salary workers (including private household workers), counts the self-employed, unpaid family workers, and persons "with a job but not at work" and not paid for the period absent.

The payroll survey relates only to paid wage and salary employees (regardless of age) on the payrolls of nonagricultural establishments. Persons who worked at more than one job during the survey week or otherwise appear on more than one payroll are counted more than once in the establishment survey. Such persons are counted only once in the household survey and are classified in the job at which they worked the greatest number of hours.

Unemployment

To be classified in the household survey as unemployed an individual must: (1) Have been without a job during the survey week; (2) have made specific efforts to find employment sometime during the prior 4 weeks; and (3) be presently available for work. In addition, persons on layoff and those waiting to begin a new job (within 30 days), neither of whom must meet the jobseeking requirements, are also classified as unemployed. The unemployed total includes all persons who satisfactorily meet the above criteria, regardless of their eligibility for unemployment insurance benefits or any kind of public assistance. The unemployment rate represents the unemployed as a proportion of the civilian labor force (the employed and unemployed combined).

The Bureau regularly publishes a wide variety of labor market measures. See, for example, the demographic, occupational, and industry detail in tables A-2 and A-3 of this release and the comprehensive data package in Employment and Earnings each month. A special grouping of seven unemployment measures is set forth in table A-7. Identified by the symbols U-1 through U-7, these measures represent a range of possible definitions of unemployment and of the labor force—from the most restrictive (U-1) to the most comprehensive (U-7). The official rate of unemployment appears as U-5.

Seasonal adjustment

Nearly all economic phenomena are affected to some degree by seasonal variations. These are recurring, predictable events which are repeated more or less regularly each year—changes in weather, opening and closing of schools, major holidays, industry production schedules, etc. The cumulative effects of these events are often large. For example, on average over the year, they explain about 95 percent of the month-to-month variance in the unemployment figures. Since seasonal variations tend to be large relative to the underlying cyclical trends, it is necessary to use seasonally-adjusted data to interpret short-term economic developments. At the beginning of each year, seasonal adjustment factors for unemployment and other labor force series are calculated for use during the entire year, taking into account the prior year's experience.

All seasonally-adjusted civilian labor force and unemployment rate statistics, as well as the major employment and unemployment estimates, are computed by aggregating independently adjusted series. The official unemployment rate for all civilian workers is derived by dividing the estimate for total unem-

ployment (the sum of four seasonally-adjusted age-sex components) by the civilian labor force (the sum of 12 seasonally-adjusted age-sex components).

For establishment data, the seasonally-adjusted series for all employees, production workers, average weekly hours, and average hourly earnings are adjusted by aggregating the seasonally-adjusted data from the respective component series. These data are also revised annually, often in conjunction with benchmark (comprehensive counts of employment) adjustments. (The most recent revision of seasonally-adjusted data was based on data through May 1978.)

Sampling variability

Both the household and establishment survey statistics are subject to sampling error, which should be taken into account in evaluating the levels of a series as well as changes over time. Because the household survey is based upon a probability sample, the results may differ from the figures that would be obtained if it were possible to take a complete census using the same questionnaires and procedures. The standard error is the measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the entire population is surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from a figure that would be obtained through a complete census by less than the standard error. Tables A through H in the "Explanatory Notes" of Employment and Earnings provide approximations of the standard errors for unemployment and other labor force categories. To obtain a 90-percent level of confidence, the confidence interval generally used by BLS, the errors should be multiplied by 1.6. The following examples provide an indication of the magnitude of sampling error: For a monthly change in total employment, the standard error is on the order of plus or minus 182,000. Similarly, the standard error on a change in total unemployment is approximately 115,000. The standard error on a change in the national unemployment rate is 0.12 percentage point.

Although the relatively large size of the monthly establishment survey assures a high degree of accuracy, the estimates derived from it also may differ from the figures obtained if a complete census using the same schedules and procedures were possible. However, since the estimating procedures utilize the previous month's level as the base in computing the current month's level of employment (link-relative technique), sampling and response errors may accumulate over several months. To remove this accumulated error, the employment estimates are adjusted to new benchmarks (comprehensive counts of employment), usually on an annual basis. In addition to taking account of sampling and response errors, the benchmark revision adjusts the estimates for changes in the industrial classification of individual establishments. Employment estimates are currently projected from March 1977 levels.

One measure of the reliability of the employment estimates for individual industries is the root-mean-square error (RMSE). The RMSE is the standard deviation adjusted for the bias in estimates. If the bias is small, the chances are about 68 out of 100 that an estimate from the sample would differ from its benchmark by less than the RMSE. For total nonagricultural employment, the RMSE is on the order of plus or minus 81,000. Measures of reliability (approximations of the RMSE) for establishment-survey data and actual amounts of revision due to benchmark adjustments are provided in tables J through O in the "Explanatory Notes" of Employment and Earnings.

Table A-1. Employment status of the noninstitutional population

[Numbers in thousands]

Employment status	Not seasonally adjusted			Seasonally adjusted					
	Apr. 1978	Mar. 1979	Apr. 1979	Apr. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979
TOTAL									
Total noninstitutional population[1]	160,509	162,909	163,008	160,504	162,250	162,448	162,633	162,905	163,008
Armed Forces[1]	2,118	2,090	2,082	2,118	2,108	2,098	2,094	2,090	2,082
Civilian noninstitutional population[1]	158,386	160,819	160,926	158,386	160,142	160,350	160,539	160,815	160,926
Civilian labor force	98,866	101,865	101,236	99,767	101,867	102,183	102,527	102,714	102,111
Participation rate	62.4	63.3	62.9	63.0	63.6	63.7	63.9	63.9	63.5
Employed	93,180	95,501	95,675	93,704	95,855	96,300	96,647	96,842	96,174
Employment-population ratio[1]	58.1	58.6	58.7	58.4	59.1	59.1	59.4	59.4	59.2
Agriculture	3,151	2,925	3,074	3,274	3,387	3,232	3,311	3,343	3,186
Nonagricultural industries	90,029	92,576	92,601	90,430	92,468	93,068	93,335	93,499	92,987
Unemployed	5,685	6,365	5,561	6,063	6,012	5,883	5,881	5,871	5,937
Unemployment rate	5.8	6.1	5.5	6.1	5.9	5.8	5.7	5.7	5.8
Not in labor force	59,520	59,153	59,690	58,619	58,275	58,170	58,012	58,105	58,815
Men, 20 years and over									
Total noninstitutional population[1]	68,819	69,612	69,663	68,819	69,288	69,385	69,476	69,614	69,663
Civilian noninstitutional population[1]	66,740	67,939	67,997	66,740	67,606	67,726	67,816	67,939	67,997
Civilian labor force	53,003	54,008	53,958	53,276	54,033	54,333	54,485	54,544	54,484
Participation rate	79.4	79.5	79.4	79.8	79.9	80.2	80.3	80.1	79.8
Employed	50,725	51,487	51,773	50,997	51,638	52,133	52,331	52,484	52,056
Employment-population ratio[1]	76.1	76.0	76.3	76.5	76.8	75.1	75.3	75.3	76.7
Agriculture	2,274	2,176	2,237	2,309	2,403	2,293	2,324	2,350	2,271
Nonagricultural industries	48,451	49,310	49,536	48,688	49,235	49,841	50,007	49,989	49,785
Unemployed	2,278	2,518	2,185	2,279	2,195	2,200	2,154	2,160	2,187
Unemployment rate	4.3	4.7	4.0	4.3	4.1	4.0	4.0	4.0	4.0
Not in labor force	13,737	13,934	14,039	13,464	13,567	13,393	13,331	13,455	13,734
Women, 20 years and over									
Total noninstitutional population[1]	75,300	76,589	76,645	75,300	76,227	76,337	76,448	76,589	76,645
Civilian noninstitutional population[1]	75,196	76,476	76,532	75,196	76,119	76,228	76,339	76,476	76,532
Civilian labor force	37,133	38,790	38,825	37,085	38,217	38,185	38,429	38,642	38,345
Participation rate	49.4	50.7	50.2	49.3	50.2	50.1	50.3	50.5	50.1
Employed	35,083	36,592	36,802	34,874	35,990	36,019	36,252	36,440	36,165
Employment-population ratio[1]	46.6	47.8	47.5	46.3	47.2	47.2	47.4	47.6	47.2
Agriculture	552	478	534	560	591	586	608	613	560
Nonagricultural industries	34,531	36,114	36,869	34,314	35,399	35,433	35,644	35,827	35,586
Unemployed	2,050	2,197	2,021	2,211	2,227	2,166	2,177	2,201	2,180
Unemployment rate	5.5	5.7	5.3	6.0	5.8	5.7	5.7	5.7	5.7
Not in labor force	38,065	37,686	38,108	38,111	37,902	38,040	37,909	37,834	38,187
Both sexes, 16-19 years									
Total noninstitutional population[1]	16,785	16,709	16,700	16,785	16,734	16,725	16,717	16,709	16,700
Civilian noninstitutional population[1]	16,449	16,408	16,397	16,449	16,422	16,400	16,391	16,400	16,397
Civilian labor force	8,730	8,871	8,853	9,406	9,617	9,665	9,813	9,828	9,543
Participation rate	53.1	54.1	54.0	57.2	58.6	58.9	59.8	59.9	58.1
Employed	7,372	7,422	7,499	7,833	8,027	8,148	8,064	8,140	7,953
Employment-population ratio[1]	43.9	44.4	44.9	46.7	48.0	48.7	48.2	48.7	47.6
Agriculture	226	271	301	265	293	256	280	272	235
Nonagricultural industries	7,047	7,152	7,195	7,468	7,734	7,794	7,784	7,868	7,718
Unemployed	1,357	1,449	1,355	1,573	1,590	1,517	1,549	1,490	1,570
Unemployment rate	15.5	16.3	15.3	16.7	16.5	15.7	16.1	15.6	16.5
Not in labor force	7,719	7,533	7,543	7,043	6,805	6,735	6,778	6,776	6,874
White									
Total noninstitutional population[1]	140,863	142,720	142,773	140,863	142,198	142,351	142,493	142,720	142,773
Civilian noninstitutional population[1]	139,149	141,063	141,123	139,149	140,507	140,683	140,825	141,063	141,123
Civilian labor force	87,198	89,558	89,195	87,902	89,747	90,093	90,395	90,435	89,924
Participation rate	62.7	63.5	63.2	63.2	63.9	64.0	64.2	64.1	63.7
Employed	82,848	84,770	84,997	83,303	85,145	85,542	85,981	85,930	85,479
Employment-population ratio[1]	58.8	59.4	59.5	59.1	59.9	60.1	60.3	60.2	59.9
Unemployed	4,351	4,788	4,198	4,599	4,602	4,550	4,413	4,505	4,444
Unemployment rate	5.0	5.3	4.7	5.2	5.2	5.1	4.9	5.0	4.9
Not in labor force	51,951	51,506	51,928	51,247	50,760	50,590	50,430	50,628	51,200
Black and other									
Total noninstitutional population[1]	19,641	20,189	20,234	19,641	20,051	20,097	20,140	20,185	20,234
Civilian noninstitutional population[1]	19,237	19,755	19,802	19,237	19,635	19,670	19,714	19,755	19,802
Civilian labor force	11,667	12,108	12,041	11,865	12,153	12,077	12,448	12,251	12,175
Participation rate	60.7	61.3	60.8	61.4	61.9	61.4	62.0	62.0	61.5
Employed	10,233	10,731	10,678	10,391	10,758	10,725	10,775	10,678	10,738
Employment-population ratio[1]	52.6	53.2	52.8	52.9	53.7	53.4	53.5	53.4	53.0
Unemployed	1,435	1,377	1,363	1,411	1,395	1,352	1,452	1,374	1,482
Unemployment rate	11.9	11.4	11.3	12.0	11.5	11.2	11.9	11.2	11.8
Not in labor force	7,569	7,648	7,761	7,435	7,482	7,593	7,486	7,504	7,647

[1] The population and Armed Forces figure are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

[2] Civilian employment as a percent of the total noninstitutional population (including Armed Forces).

Table A-2. Major unemployment indicators, seasonally adjusted

Selected categories	Number of unemployed persons (in thousands)		Unemployment rates					
	Apr. 1978	Apr. 1979	Apr. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979
CHARACTERISTICS								
Total, 16 years and over	6,063	5,937	6.1	5.9	5.8	5.7	5.7	5.8
Men, 20 years and over	2,675	2,187	4.1	4.1	4.0	4.0	4.0	4.0
Women, 20 years and over	2,411	2,180	6.0	5.8	5.7	5.7	5.7	5.7
Both sexes, 16-19 years	1,573	1,570	16.7	16.5	15.7	16.1	15.5	16.5
White, total	4,599	4,444	5.2	5.2	5.1	4.9	5.0	4.9
Men, 20 years and over	1,740	1,657	3.7	3.5	3.6	3.4	3.4	3.4
Women, 20 years and over	1,676	1,619	5.2	5.1	5.0	5.0	5.0	4.9
Both sexes, 16-19 years	1,183	1,168	14.1	14.2	13.7	13.6	13.6	13.9
Black and other, total	1,411	1,442	12.8	11.5	11.2	11.9	11.2	11.8
Men, 20 years and over	567	498	8.9	8.4	7.8	8.6	8.6	8.6
Women, 20 years and over	542	566	10.8	10.2	10.6	10.6	9.8	10.8
Both sexes, 16-19 years	362	375	35.4	34.9	32.7	35.5	31.5	34.5
Married men, spouse present	1,125	1,097	2.8	2.5	2.6	2.6	2.6	2.7
Married women, spouse present	1,166	1,218	5.1	5.6	5.3	5.1	5.1	5.2
Women who head families	806	810	10.1	7.7	7.8	8.3	8.3	8.4
Full-time workers	4,670	4,655	5.5	5.3	5.2	5.2	5.1	5.3
Part-time workers	1,399	1,291	9.4	9.2	9.1	8.6	9.2	8.8
Unemployed 15 weeks and over[1]	1,966	1,235	1.5	1.2	1.2	1.2	1.3	1.2
Labor force time lost[2]	--	--	6.5	6.2	6.2	6.2	6.3	6.5
OCCUPATION[3]								
White-collar workers	1,736	1,661	3.6	3.5	3.3	3.4	3.4	3.3
Professional and technical	365	341	2.5	3.0	2.5	2.3	2.1	2.2
Managers and administrators, except farm	212	245	2.0	1.9	2.0	1.9	2.2	2.3
Sales workers	266	254	4.3	3.6	3.8	4.3	4.1	4.0
Clerical workers	893	821	5.1	4.6	4.6	4.7	4.9	4.5
Blue-collar workers	2,263	2,330	6.7	6.8	6.4	6.4	6.6	6.9
Craft and kindred workers	569	558	4.4	4.7	4.5	4.7	4.6	4.2
Operatives, except transport	946	996	8.0	7.7	7.6	7.6	7.7	8.6
Transport equipment operatives	204	226	5.5	5.3	4.9	5.0	5.2	6.0
Nonfarm laborers	544	551	10.3	11.0	9.4	9.3	10.3	10.5
Service workers	1,068	1,031	7.7	7.7	7.9	7.1	7.2	7.4
Farm workers	90	92	3.2	3.4	2.8	3.6	3.2	3.4
INDUSTRY[3]								
Nonagricultural private wage and salary workers[4]	4,308	4,259	5.9	5.8	5.7	5.6	5.5	5.7
Construction	466	531	9.8	12.1	10.6	11.5	10.2	10.3
Manufacturing	1,173	1,215	5.4	5.0	5.0	4.8	5.2	5.8
Durable goods	569	640	4.5	4.4	4.4	4.1	4.3	4.6
Nondurable goods	584	575	6.5	6.0	5.9	5.8	6.4	6.5
Transportation and public utilities	203	156	3.8	3.3	3.5	3.0	4.0	2.9
Wholesale and retail trade	1,237	1,245	7.1	6.8	6.5	6.6	6.2	6.6
Finance and service industries	1,108	1,066	5.2	5.1	5.1	4.8	4.7	4.8
Government workers	615	576	3.9	4.0	4.0	4.7	4.1	3.6
Agricultural wage and salary workers	141	140	7.9	7.7	7.2	8.9	7.7	8.6

[1] Unemployment rate calculated as a percent of civilian labor force.

[2] Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

[3] Unemployment by occupation includes all experienced unemployed persons, whereas that by industry covers only unemployed wage and salary workers.

[4] Includes mining, not shown separately.

Table A-3. Selected employment indicators

[In thousands]

Selected categories	Not seasonally adjusted		Seasonally adjusted					
	Apr. 1978	Apr. 1979	Apr. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979
CHARACTERISTICS								
Total employed, 16 years and over	93,180	95,675	93,704	95,855	96,300	96,647	96,842	96,178
Men	54,674	55,765	55,184	56,072	56,449	56,549	56,559	56,267
Women	38,506	39,930	38,520	39,783	39,851	40,098	40,283	39,907
Married men, spouse present	38,473	38,800	38,575	39,039	39,202	39,374	39,291	38,917
Married women, spouse present	21,869	22,511	21,713	22,297	22,410	22,632	22,700	22,355
OCCUPATION								
White-collar workers	46,766	49,134	46,795	48,040	48,275	49,001	49,133	49,160
Professional and technical	14,257	15,302	14,186	14,629	14,743	15,034	15,083	15,226
Managers and administrators, except farm	9,987	10,211	10,184	10,217	10,324	10,436	10,407	10,409
Sales workers	5,918	6,140	5,856	6,092	6,055	6,161	6,067	6,079
Clerical workers	16,608	17,481	16,569	17,102	17,158	17,412	17,577	17,446
Blue-collar workers	30,596	31,122	31,452	31,962	32,491	32,331	32,085	31,582
Craft and kindred workers	12,093	12,507	12,277	12,610	12,842	12,932	12,808	12,697
Operatives, except transport	10,809	10,587	10,875	10,887	11,047	10,953	11,060	10,651
Transport equipment operatives	3,539	3,550	3,539	3,640	3,678	3,618	3,565	3,550
Nonfarm laborers	4,556	4,478	4,761	4,825	4,924	4,829	4,652	4,684
Service workers	14,786	12,884	12,814	13,087	12,777	12,770	12,856	12,909
Farm workers	2,632	2,534	2,726	2,826	2,759	2,742	2,803	2,624
MAJOR INDUSTRY AND CLASS OF WORKER								
Agriculture:								
Wage and salary workers	1,453	1,310	1,406	1,478	1,365	1,429	1,419	1,362
Self-employed workers	1,521	1,497	1,555	1,625	1,547	1,550	1,595	1,531
Unpaid family workers	278	266	295	318	293	348	324	282
Nonagricultural industries:								
Wage and salary workers	83,147	85,722	83,622	85,579	86,169	86,386	86,592	86,195
Government	15,473	15,510	15,324	15,360	15,217	15,293	15,224	15,356
Private industries	67,674	70,212	68,298	70,219	70,952	71,053	71,368	70,839
Private households	1,278	1,146	1,395	1,316	1,265	1,334	1,255	1,160
Other industries	66,396	69,066	66,903	68,903	69,707	69,719	70,112	69,679
Self-employed workers	6,365	6,390	6,483	6,515	6,529	6,632	6,585	6,466
Unpaid family workers	517	488	499	460	478	456	443	471
PERSONS AT WORK [1]								
Nonagricultural industries	86,652	87,141	85,797	87,046	87,490	87,592	87,955	86,345
Full-time schedules	70,338	71,411	70,481	71,787	72,209	72,250	72,623	71,554
Part time for economic reasons	3,017	3,023	3,310	3,058	3,159	3,147	3,179	3,312
Usually work full time	1,223	1,256	1,231	1,209	1,208	1,205	1,235	1,265
Usually work part time	1,794	1,767	2,079	1,849	1,951	1,942	1,944	2,048
Part time for noneconomic reasons	13,297	12,707	12,006	12,201	12,122	12,195	12,154	11,479

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial disputes.

Table A-4. Duration of unemployment

[Numbers in thousands]

Weeks of unemployment	Not seasonally adjusted		Seasonally adjusted					
	Apr. 1978	Apr. 1979	Apr. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979
DURATION								
Less than 5 weeks	2,335	2,498	2,747	2,876	2,713	2,743	2,751	2,939
5 to 14 weeks	1,565	1,580	1,650	1,979	1,877	1,870	1,857	1,874
15 weeks and over	1,785	1,983	1,486	1,208	1,251	1,260	1,305	1,235
15 to 26 weeks	1,052	894	809	726	728	712	729	692
27 weeks and over	733	588	677	482	523	548	576	543
Average (mean) duration, in weeks	13.9	12.4	12.4	10.7	11.2	11.3	11.7	11.0
Median duration, in weeks	7.3	6.4	5.9	5.6	5.9	6.3	5.8	5.2
PERCENT DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	41.1	44.9	45.1	47.4	46.4	46.7	46.5	48.6
5 to 14 weeks	27.5	28.4	30.5	32.6	32.1	31.8	31.4	31.0
15 weeks and over	31.4	26.7	24.4	19.9	21.4	21.4	22.1	20.4
15 to 26 weeks	18.5	16.1	13.3	12.0	12.5	12.1	12.3	11.4
27 weeks and over	12.9	10.6	11.1	7.9	9.0	9.3	9.7	9.0

Table A-5. Reasons for unemployment

[Numbers in thousands]

Reasons	Not seasonally adjusted		Seasonally adjusted					
	Apr. 1978	Apr. 1979	Apr. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979
NUMBER OF UNEMPLOYED								
Lost last job	2,616	2,579	2,556	2,482	2,454	2,481	2,440	2,521
On layoff	631	838	637	715	753	792	789	846
Other job losers	1,985	1,741	1,919	1,727	1,701	1,689	1,652	1,675
Left last job	778	751	877	871	927	829	863	847
Reentered labor force	1,509	1,583	1,750	1,937	1,692	1,756	1,788	1,790
Seeking first job	782	688	905	826	823	874	822	811
PERCENT OF DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	46.0	46.4	42.0	40.2	41.6	41.8	41.3	42.2
On layoff	11.1	15.1	10.5	11.8	12.8	13.3	13.3	14.2
Other job losers	34.9	31.3	31.5	28.4	28.9	28.4	27.9	28.1
Job leavers	13.7	13.5	14.4	14.3	15.7	14.0	14.6	14.2
Reentrants	26.5	27.8	28.7	31.9	28.7	29.6	30.2	30.0
New entrants	13.8	12.4	14.9	13.6	14.0	14.7	13.9	13.6
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE								
Job losers	2.0	2.5	2.6	2.6	2.6	2.6	2.6	2.5
Job leavers	.8	.7	.9	.9	.9	.8	.8	.8
Reentrants	1.5	1.5	1.8	1.9	1.7	1.7	1.7	1.8
New entrants	.8	.7	.9	.8	.8	.9	.8	.8

Table A-6. Unemployment by sex and age, seasonally adjusted

Sex and age	Number of unemployed persons (in thousands)		Unemployment rates					
	Apr. 1978	Apr. 1979	Apr. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979
Total, 16 years and over	6,063	5,937	6.1	5.9	5.8	5.7	5.7	5.8
16 to 19 years	1,573	1,570	16.7	16.5	15.7	16.1	15.5	16.5
16 to 17 years	785	772	19.6	20.2	18.4	18.4	18.9	19.1
18 to 19 years	779	788	14.4	13.8	13.6	14.6	13.1	14.3
20 to 24 years	1,482	1,305	10.0	9.3	8.6	8.6	8.8	8.5
25 years and over	3,016	3,063	4.0	3.9	3.9	3.9	3.9	4.0
25 to 54 years	2,536	2,602	4.2	4.2	4.2	4.1	4.1	4.2
55 years and over	470	448	3.2	2.9	2.9	3.0	3.1	3.1
Men, 16 years and over	3,096	3,001	5.3	5.1	5.1	5.0	5.0	5.1
16 to 19 years	817	814	16.3	16.7	16.1	16.5	16.0	16.2
16 to 17 years	421	392	19.5	20.7	19.1	19.4	19.9	18.0
18 to 19 years	383	408	13.4	13.6	13.5	14.7	13.2	14.2
20 to 24 years	797	687	9.3	8.9	8.4	8.2	8.4	7.8
25 years and over	1,533	1,538	3.4	3.2	3.2	3.2	3.2	3.3
25 to 54 years	1,223	1,258	3.4	3.4	3.3	3.2	3.3	3.4
55 years and over	299	270	3.3	2.6	2.8	2.8	2.8	3.0
Women, 16 years and over	2,967	2,936	7.2	6.9	6.7	6.7	6.7	6.9
16 to 19 years	756	756	17.2	16.3	15.3	15.7	14.8	16.8
16 to 17 years	364	380	19.7	19.6	17.5	17.4	17.8	20.2
18 to 19 years	396	380	15.5	14.1	13.6	14.4	13.0	14.4
20 to 24 years	735	658	10.8	9.7	8.9	9.1	9.4	9.4
25 years and over	1,483	1,526	4.9	5.0	5.0	4.9	4.8	4.9
25 to 54 years	1,313	1,349	5.3	5.3	5.4	5.3	5.2	5.2
55 years and over	171	179	3.1	3.3	3.1	3.3	3.6	3.1

Table A-7. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

(Percent)

Measures	Quarterly averages					Monthly data		
	1978				1979	1979		
	I	II	III	IV	I	Feb.	Mar.	Apr.
U-1—Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.0	1.4	1.3	1.2	1.2	1.2	1.3	1.2
U-2—Job losers as a percent of the civilian labor force	2.6	2.5	2.4	2.4	2.4	2.4	2.4	2.5
U-3—Unemployed persons 25 years and over as a percent of the civilian labor force 25 years and over	4.1	4.1	4.1	3.9	3.9	3.9	3.9	4.0
U-4—Unemployed full-time jobseekers as a percent of the full-time labor force	5.7	5.5	5.5	5.2	5.2	5.2	5.1	5.3
U-5—Total unemployed as a percent of the civilian labor force (official measure)	6.2	6.0	6.0	5.8	5.7	5.7	5.7	5.8
U-6—Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons as a percent of the civilian labor force less ½ of the part-time labor force	7.7	7.6	7.5	7.2	7.2	7.2	7.1	7.3
U-7—Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons plus discouraged workers as a percent of the civilian labor force plus discouraged workers less ½ of the part-time labor force	8.6	8.4	8.4	8.0	7.9	N.A.	N.A.	N.A.

N.A.= not available.

Table A-8. Employment status of the noninstitutional population by race and Hispanic origin, not seasonally adjusted

(Number in thousands)

Employment status	Total		White		Black[1]		Hispanic origin[2]	
	Apr. 1978	Apr. 1979	Apr. 1978	Apr. 1979	Apr. 1978	Apr. 1979	Apr. 1978	Apr. 1979
TOTAL								
Civilian noninstitutional population	158,386	160,926	139,149	141,123	16,552	16,947	7,072	7,965
Civilian labor force	98,866	101,236	87,198	89,195	9,976	10,198	4,684	5,001
Percent of population	62.4	62.9	62.7	63.2	60.3	60.2	66.2	62.8
Employment	93,180	95,675	82,848	84,997	8,764	8,967	4,284	4,606
Agriculture	3,151	3,074	2,675	2,816	221	204	233	214
Nonagricultural industries	90,029	92,601	79,973	82,181	8,543	8,763	4,051	4,393
Unemployment	5,685	5,561	4,351	4,198	1,212	1,231	400	395
Unemployment rate	5.8	5.5	5.0	4.7	12.1	12.1	8.5	7.9
Not in labor force	59,520	59,690	51,951	51,928	6,576	6,749	2,388	2,964

[1] Data relate to black workers only. According to the 1970 Census, they comprised about 89 percent of the "black and other" population group.

[2] Data on persons of Hispanic origin are tabulated separately, without regard to race, which means that they are also included in the data for white and black workers. At the time of the 1970 Census, approximately 80 percent of their population was white.

Table A-9. Employment status of male Vietnam-era veterans and nonveterans by age, not seasonally adjusted

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
			Total		Employed		Unemployed			
							Number		Percent of labor force	
	Apr. 1978	Apr. 1979	Apr. 1978	Apr. 1979	Apr. 1978	Apr. 1979	Apr. 1978	Apr. 1979	Apr. 1978	Apr. 1979
VETERANS[1]										
Total, 20 years and over	8,287	8,494	7,815	8,082	7,470	7,739	345	343	4.4	4.2
20 to 24 years	800	595	711	553	640	506	71	47	10.0	8.5
25 to 39 years	6,792	7,090	6,520	6,843	6,266	6,575	254	268	3.9	3.9
25 to 29 years	2,458	2,033	2,320	1,930	2,208	1,812	112	118	4.8	6.1
30 to 34 years	3,293	3,540	3,191	3,469	3,082	3,353	109	116	3.4	3.3
35 to 39 years	1,041	1,477	1,009	1,444	976	1,410	33	34	3.3	2.4
40 years and over	695	809	584	686	564	658	20	28	3.4	4.1
NONVETERANS[2]										
Total, 25 to 39 years	13,518	14,388	12,838	13,602	12,297	13,091	537	511	4.2	4.0
25 to 29 years	5,962	6,554	5,613	6,174	5,303	5,894	310	280	5.5	4.5
30 to 34 years	3,990	4,125	3,812	3,908	3,691	3,783	121	125	3.2	3.2
35 to 39 years	3,566	3,709	3,409	3,520	3,303	3,414	106	106	3.1	3.0

[1] Vietnam-era veterans are those who served between August 5, 1964 and May 7, 1975.

[2] Nonveterans are males who have never served in the Armed Forces. Published data are limited to those 25-39 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

NOTE: Seasonally-adjusted data are no longer being provided because the changing age composition of the Vietnam-era veterans' population distorts the ability to identify seasonality in the series.

Table A-10. Employment status of the noninstitutional population for ten large States

[Numbers in thousands]

State and employment status	Not seasonally adjusted*			Seasonally adjusted					
	Apr. 1978	Mar. 1979	Apr. 1979	Apr. 1978	Dec. 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979
California									
Civilian noninstitutional population[1]	16,254	16,623	16,593	16,254	16,506	16,536	16,561	16,623	16,593
Civilian labor force	10,589	10,768	10,662	10,682	10,760	10,824	10,863	10,783	10,755
Employed	9,825	10,048	10,006	9,890	10,084	10,137	10,149	10,084	10,071
Unemployed	764	721	656	792	676	687	714	699	684
Unemployment rate	7.2	6.7	6.2	7.4	6.3	6.3	6.6	6.5	6.4
Florida									
Civilian noninstitutional population[1]	6,477	6,654	6,671	6,477	6,602	6,620	6,636	6,654	6,671
Civilian labor force	3,648	3,850	3,832	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,426	3,627	3,629	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	222	223	202	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	6.1	5.8	5.3	(2)	(2)	(2)	(2)	(2)	(2)
Illinois									
Civilian noninstitutional population[1]	8,194	8,259	8,265	8,194	8,243	8,247	8,252	8,259	8,265
Civilian labor force	5,229	5,249	5,219	5,279	5,382	5,317	5,260	5,273	5,269
Employed	4,943	4,934	4,946	4,959	5,045	5,051	4,996	4,973	4,962
Unemployed	286	315	273	320	337	266	264	300	307
Unemployment rate	5.5	6.0	5.2	6.1	6.3	5.0	5.0	5.7	5.8
Massachusetts									
Civilian noninstitutional population[1]	4,319	4,361	4,365	4,319	4,350	4,354	4,357	4,361	4,365
Civilian labor force	2,789	2,914	2,883	(2)	(2)	(2)	(2)	(2)	(2)
Employed	2,630	2,720	2,731	2,662	2,676	2,727	2,775	2,754	2,763
Unemployed	159	194	152	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	5.7	6.7	5.3	(2)	(2)	(2)	(2)	(2)	(2)
Michigan									
Civilian noninstitutional population[1]	6,627	6,708	6,716	6,627	6,687	6,694	6,701	6,708	6,716
Civilian labor force	4,167	4,290	4,254	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,892	3,949	3,888	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	275	341	366	274	304	329	305	293	365
Unemployment rate	6.6	8.0	8.6	(2)	(2)	(2)	(2)	(2)	(2)
New Jersey									
Civilian noninstitutional population[1]	5,446	5,497	5,502	5,446	5,482	5,488	5,492	5,497	5,502
Civilian labor force	3,298	3,500	3,425	3,349	3,592	3,569	3,583	3,529	3,477
Employed	3,060	3,249	3,231	3,100	3,326	3,327	3,312	3,294	3,271
Unemployed	237	251	194	249	266	242	271	235	206
Unemployment rate	7.2	7.2	5.7	7.4	7.4	6.8	7.6	6.7	5.9
New York									
Civilian noninstitutional population[1]	13,263	13,282	13,287	13,263	13,273	13,276	13,278	13,282	13,287
Civilian labor force	7,794	8,011	7,943	7,787	8,056	8,094	8,030	8,022	7,936
Employed	7,212	7,393	7,410	7,182	7,512	7,531	7,498	7,435	7,380
Unemployed	582	618	533	605	544	563	532	587	556
Unemployment rate	7.5	7.7	6.7	7.8	6.8	7.0	6.6	7.3	7.0
Ohio									
Civilian noninstitutional population[1]	7,849	7,924	7,931	7,849	7,906	7,912	7,917	7,924	7,931
Civilian labor force	4,802	5,006	4,963	4,866	5,118	5,065	5,056	5,063	5,026
Employed	4,532	4,704	4,687	4,590	4,851	4,760	4,773	4,811	4,746
Unemployed	270	302	275	276	267	305	283	252	280
Unemployment rate	5.6	6.0	5.5	5.7	5.2	6.0	5.6	5.0	5.6
Pennsylvania									
Civilian noninstitutional population[1]	8,840	8,891	8,896	8,840	8,875	8,881	8,885	8,891	8,896
Civilian labor force	5,198	5,277	5,186	5,231	5,357	5,333	5,275	5,295	5,219
Employed	4,840	4,865	4,866	4,863	4,998	4,994	4,947	4,932	4,889
Unemployed	358	412	320	368	359	339	328	363	330
Unemployment rate	6.9	7.8	6.2	7.0	6.7	6.4	6.2	6.9	6.3
Texas									
Civilian noninstitutional population[1]	9,146	9,367	9,343	9,146	9,291	9,309	9,325	9,367	9,343
Civilian labor force	5,904	6,119	6,083	5,957	6,116	6,150	6,220	6,146	6,136
Employed	5,675	5,889	5,845	5,685	5,813	5,913	5,963	5,908	5,855
Unemployed	230	230	239	272	303	237	257	238	281
Unemployment rate	3.9	3.8	3.9	4.6	5.0	3.9	4.1	3.9	4.6

[1] The population figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and the seasonally adjusted columns.

* These are the official Bureau of Labor Statistics' estimates used in the administration of Federal fund allocation programs.

[2] Seasonally-adjusted data are not presented for this series, because the variations that are due to seasonal influences cannot be separated with sufficient precision from those which stem from the trend-cycle and irregular components of the original time series.

 ESTABLISHMENT DATA

Table B-1. Employees on nonagricultural payrolls by industry

[In thousands]

Industry	Not seasonally adjusted				Seasonally adjusted					
	APR. 1978	FEB. 1979	MAR. p 1979	APR. p 1979	APR. 1978	DEC. 1978	JAN. 1979	FEB. 1979	MAR. p 1979	APR. p 1979
TOTAL	85,075	86,487	87,323	88,002	85,418	87,281	87,524	87,818	88,240	88,312
GOODS-PRODUCING	24,973	25,404	25,789	26,041	25,313	26,030	26,111	26,199	26,413	26,397
MINING	858	897	905	913	867	904	905	919	921	922
CONSTRUCTION	4,014	3,894	4,165	4,371	4,164	4,397	4,381	4,385	4,532	4,534
MANUFACTURING	20,101	20,613	20,719	20,757	20,282	20,729	20,825	20,895	20,960	20,941
Production workers	14,444	14,793	14,879	14,922	14,598	14,919	14,996	15,047	15,094	15,075
DURABLE GOODS	12,007	12,482	12,565	12,610	12,076	12,491	12,562	12,647	12,697	12,682
Production workers	8,621	8,952	9,016	9,061	8,676	8,985	9,034	9,100	9,136	9,115
Lumber and wood products	739.8	735.5	741.7	744.6	751	765	770	773	766	756
Furniture and fixtures	485.2	490.1	486.5	484.1	491	491	494	493	490	489
Stone, clay, and glass products	689.9	677.0	691.9	701.5	699	707	706	709	713	711
Primary metal industries	1,190.3	1,237.2	1,244.4	1,253.6	1,192	1,240	1,241	1,251	1,254	1,255
Fabricated metal products	1,634.3	1,692.8	1,696.9	1,703.1	1,646	1,697	1,706	1,715	1,712	1,715
Machinery, except electrical	2,309.0	2,472.3	2,486.0	2,495.6	2,309	2,425	2,447	2,465	2,481	2,496
Electric and electronic equipment	1,935.5	2,032.1	2,041.4	2,046.6	1,951	2,011	2,027	2,042	2,062	2,063
Transportation equipment	1,937.0	2,018.1	2,041.4	2,044.6	1,936	2,021	2,031	2,055	2,070	2,089
Instruments and related products	641.8	682.9	686.6	690.8	644	676	681	686	690	694
Miscellaneous manufacturing	448.5	443.8	448.0	445.9	457	458	459	458	459	454
NONDURABLE GOODS	8,094	8,131	8,154	8,147	8,206	8,238	8,263	8,248	8,263	8,259
Production workers	5,323	5,841	5,863	5,861	5,922	5,934	5,962	5,947	5,958	5,960
Food and kindred products	1,639.5	1,634.2	1,641.9	1,626.0	1,715	1,711	1,716	1,708	1,716	1,701
Tobacco manufacturers	67.3	69.9	67.9	66.3	74	72	72	71	73	73
Textile mill products	909.6	906.7	905.8	899.4	911	910	912	911	909	901
Apparel and other textile products	1,325.7	1,298.9	1,302.4	1,306.2	1,330	1,312	1,318	1,304	1,299	1,310
Paper and allied products	700.0	704.9	708.6	709.3	706	705	708	712	716	716
Printing and publishing	1,171.4	1,211.8	1,215.2	1,217.1	1,174	1,203	1,209	1,214	1,219	1,220
Chemicals and allied products	1,080.9	1,090.3	1,095.3	1,103.1	1,085	1,097	1,099	1,098	1,100	1,108
Petroleum and coal products	206.2	206.4	208.5	212.0	210	211	211	212	214	215
Rubber and misc. plastics products	[illegible]	769.6	770.0	767.7	748	771	773	777	778	776
Leather and leather products	253.6	238.7	238.3	239.9	253	246	245	241	239	239
SERVICE-PRODUCING	[illegible]	61,083	61,534	61,961	60,105	61,251	61,413	61,619	61,827	61,915
TRANSPORTATION AND PUBLIC UTILITIES	[illegible]	4,933	4,934	4,918	4,847	4,967	4,979	5,001	5,034	4,958
WHOLESALE AND RETAIL TRADE	[illegible]	19,402	19,552	19,643	19,252	[illegible]	[illegible]	19,883	19,949	19,992
WHOLESALE TRADE	[illegible]	4,985	[illegible]	[illegible]	4,872	4,995	[illegible]	5,035	5,056	5,078
RETAIL TRADE	[illegible]	14,417	[illegible]	[illegible]	14,380	14,702	[illegible]	[illegible]	14,893	14,914
FINANCE, INSURANCE, AND REAL ESTATE	[illegible]	4,786	[illegible]	[illegible]	[illegible]	4,789	[illegible]	[illegible]	[illegible]	4,860
SERVICES	15,866	16,241	16,413	[illegible]	[illegible]	16,327	16,352	[illegible]	16,512	16,569
GOVERNMENT	[illegible]	15,718	15,792	15,786	15,517	15,471	15,451	15,468	15,500	15,536
FEDERAL	2,739	2,738	2,740	2,749	2,745	2,734	2,755	2,755	2,754	2,755
STATE AND LOCAL	13,027	12,980	13,052	13,037	12,772	12,737	12,706	12,713	12,746	12,781

p = preliminary.

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	APR. 1978	FEB. 1979	MAR. 1979 p	APR. 1979 p	APR. 1978	DEC. 1978	JAN. 1979	FEB. 1979	MAR. 1979 p	APR. 1979 p
TOTAL PRIVATE	35.8	35.4	35.7	35.1	36.1	35.9	35.7	35.7	35.9	35.4
MINING	43.6	42.7	43.2	42.6	44.0	43.7	43.4	43.0	43.5	43.0
CONSTRUCTION	37.0	35.4	37.0	35.5	37.3	37.2	35.9	36.4	37.6	35.8
MANUFACTURING	40.4	40.2	40.6	38.9	40.8	40.7	40.7	40.7	40.8	39.1
Overtime hours	3.5	3.5	3.6	2.5	3.8	3.8	3.8	3.8	3.8	2.7
DURABLE GOODS	41.2	41.1	41.4	39.2	41.4	41.5	41.5	41.5	41.6	39.4
Overtime hours	3.7	3.9	3.9	2.6	4.0	4.1	4.2	4.2	4.1	2.8
Lumber and wood products	40.1	39.0	39.5	38.9	40.2	40.1	40.0	39.5	39.9	39.0
Furniture and fixtures	39.4	38.1	39.1	37.7	40.1	39.2	39.2	38.8	39.5	38.4
Stone, clay, and glass products	41.7	40.6	41.7	41.0	42.0	42.0	41.4	41.5	42.2	41.2
Primary metal industries	41.5	42.1	42.0	40.6	41.5	42.2	42.4	42.3	42.0	40.6
Fabricated metal products	41.1	40.9	41.2	38.6	41.4	41.4	41.2	41.4	41.4	38.9
Machinery, except electrical	42.0	42.5	42.6	40.1	42.3	42.5	42.2	42.6	42.6	40.3
Electric and electronic equipment	40.2	40.5	40.8	38.8	40.4	40.5	40.7	40.9	41.0	39.0
Transportation equipment	42.3	42.0	42.2	38.1	42.4	42.9	43.0	42.7	42.4	38.2
Instruments and related products	41.1	40.9	41.3	39.7	41.4	40.9	41.1	41.1	41.4	40.0
Miscellaneous manufacturing	39.0	38.6	39.2	37.5	39.1	38.8	39.1	39.0	39.2	37.6
NONDURABLE GOODS	39.4	38.9	39.3	38.3	39.8	39.5	39.6	39.4	39.6	38.8
Overtime hours	3.1	3.0	3.1	2.4	3.4	3.3	3.2	3.2	3.3	2.6
Food and kindred products	39.4	39.2	39.7	39.2	40.1	40.0	40.1	39.7	40.2	39.9
Tobacco manufactures	38.4	36.2	37.2	36.6	38.7	38.1	36.7	36.7	37.6	36.9
Textile mill products	40.5	39.8	40.4	38.5	40.9	40.4	40.9	40.0	40.6	38.9
Apparel and other textile products	35.9	35.0	35.4	34.0	36.3	35.6	35.3	35.5	35.5	34.4
Paper and allied products	42.8	42.3	42.6	41.6	43.5	42.7	42.6	42.8	42.9	42.3
Printing and publishing	37.5	37.3	37.7	36.9	37.9	37.6	37.7	37.7	37.8	37.3
Chemicals and allied products	42.1	41.6	41.9	42.0	42.0	41.8	42.0	41.9	42.0	41.9
Petroleum and coal products	43.4	42.7	42.8	43.1	43.6	43.7	43.4	43.4	43.1	43.3
Rubber and misc. plastics products	40.9	41.2	41.4	39.5	41.3	41.2	41.5	41.5	41.4	39.9
Leather and leather products	37.5	35.9	35.8	35.1	38.1	36.7	37.0	36.3	36.1	35.6
TRANSPORTATION AND PUBLIC UTILITIES	39.8	39.9	40.0	39.2	40.0	40.0	40.2	40.0	40.3	39.4
WHOLESALE AND RETAIL TRADE	32.7	32.1	32.4	32.5	33.0	32.9	32.4	32.5	32.8	32.8
WHOLESALE TRADE	38.8	38.4	38.8	38.5	39.0	38.9	38.7	38.7	39.0	38.7
RETAIL TRADE	30.9	30.1	30.4	30.6	31.2	31.0	30.5	30.6	30.8	30.9
FINANCE, INSURANCE, AND REAL ESTATE	36.6	36.4	36.3	36.3	36.7	36.3	36.3	36.3	36.3	36.4
SERVICES	32.8	32.4	32.5	32.5	33.0	32.5	32.6	32.6	32.7	32.7

[1] Data relate to production workers in mining and manufacturing; to construction workers in construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls.

p = preliminary.

ESTABLISHMENT DATA

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers[1] on private nonagricultural payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	APR. 1978	FEB. 1979	MAR. p 1979	APR. p 1979	APR. 1978	FEB. 1979	MAR. p 1979	APR. p 1979
TOTAL PRIVATE	$5.59	$6.00	$6.02	$6.02	$200.12	$212.40	$214.91	$211.30
Seasonally adjusted	5.61	5.99	6.05	6.04	202.52	213.84	217.20	213.82
MINING	7.62	8.20	8.23	8.28	332.23	350.14	355.54	352.73
CONSTRUCTION	8.39	9.01	8.97	9.02	310.43	316.95	331.89	320.21
MANUFACTURING	6.03	6.52	6.55	6.53	243.61	262.10	265.93	258.02
DURABLE GOODS	6.44	6.95	6.99	6.94	265.33	285.65	289.39	272.05
Lumber and wood products	5.43	5.82	5.82	5.84	217.78	226.98	229.89	227.18
Furniture and fixtures	4.59	4.93	4.95	4.94	180.85	187.83	193.55	186.28
Stone, clay, and glass products	6.18	6.57	6.62	6.72	257.71	266.74	276.05	275.52
Primary metal industries	7.98	8.75	8.74	8.82	331.17	368.38	367.08	358.09
Fabricated metal products	6.25	6.65	6.73	6.63	256.88	271.99	277.28	455.92
Machinery, except electrical	6.61	7.14	7.17	7.08	277.62	303.45	305.44	283.91
Electric and electronic equipment	5.70	6.14	6.18	6.14	229.14	248.67	252.14	238.23
Transportation equipment	7.78	8.34	8.42	8.28	327.90	350.28	355.32	335.47
Instruments and related products	5.62	6.01	6.03	5.98	230.98	245.81	249.04	237.41
Miscellaneous manufacturing	4.63	4.95	4.96	5.00	180.57	191.07	194.43	187.50
NONDURABLE GOODS	5.42	5.81	5.85	5.89	213.55	226.01	229.91	225.59
Food and kindred products	5.73	6.10	6.12	6.19	225.76	239.12	242.96	242.65
Tobacco manufacturers	6.33	6.63	6.77	6.91	243.07	240.01	251.84	252.91
Textile mill products	4.17	4.51	4.51	4.47	168.89	179.50	182.20	172.10
Apparel and other textile products	3.91	4.16	4.19	4.19	140.37	145.60	148.33	142.46
Paper and allied products	6.33	6.83	6.87	6.86	270.92	288.91	292.66	285.38
Printing and publishing	6.37	6.71	6.75	6.68	238.88	250.28	254.48	246.49
Chemicals and allied products	6.87	7.32	7.34	7.47	289.23	304.51	307.55	313.74
Petroleum and coal products	8.53	9.08	9.29	9.56	370.20	387.72	397.61	412.04
Rubber and misc. plastics products	5.36	5.82	5.83	5.78	219.42	239.78	241.36	228.31
Leather and leather products	3.87	4.15	4.16	4.18	145.13	148.99	148.93	146.72
TRANSPORTATION AND PUBLIC UTILITIES	7.45	7.91	7.91	7.86	296.51	315.61	316.40	308.11
WHOLESALE AND RETAIL TRADE	4.60	4.97	4.97	4.99	150.42	159.58	161.03	162.18
WHOLESALE TRADE	5.78	6.21	6.24	6.30	224.26	238.46	242.11	242.55
RETAIL TRADE	4.16	4.46	4.46	4.48	127.93	134.25	135.58	137.09
FINANCE, INSURANCE, AND REAL ESTATE	4.84	5.19	5.16	5.20	177.14	188.92	187.31	188.76
SERVICES	4.95	5.27	5.27	5.31	162.36	170.75	171.28	172.58

[1] See footnote 1, table B-2.

p preliminary.

Table B-4. Hourly earnings index for production or nonsupervisory workers[1] on private nonagricultural payrolls by industry division, seasonally adjusted

(1967=100)

Industry	APR. 1978	NOV. 1978	DEC. 1978	JAN. 1979	FEB. 1979	MAR. P 1979	APR. P 1979	Percent change from—	
								APR. 1978–APR. 1979	MAR. 1979–APR. 1979
TOTAL PRIVATE NONFARM:									
Current dollars	210.3	219.0	220.7	222.8	223.9	225.3	226.6	7.7	0.6
Constant (1967) dollars	109.6	108.9	108.6	108.5	107.9	107.3	N.A.	(2)	(3)
MINING	237.1	249.8	249.1	251.7	253.3	255.0	257.4	8.6	1.0
CONSTRUCTION	205.5	211.4	212.5	213.4	216.3	216.8	218.1	7.2	.6
MANUFACTURING	212.2	222.4	224.1	225.4	227.1	228.8	230.9	8.8	.9
TRANSPORTATION AND PUBLIC UTILITIES	229.4	234.7	238.3	240.7	241.6	243.4	241.3	5.6	-.9
WHOLESALE AND RETAIL TRADE	209.5	213.3	214.6	217.8	218.1	219.5	220.5	9.4	.5
FINANCE, INSURANCE, AND REAL ESTATE	192.3	200.8	202.0	202.3	203.9	204.3	206.9	7.6	1.3
SERVICES	210.5	217.8	218.9	221.7	222.2	223.6	224.5	7.1	.8

[1] See footnote 1, table B-2.
2 PERCENT CHANGE WAS +2.0 FROM MARCH 1978 TO MARCH 1979, THE LATEST MONTH AVAILABLE.
3 PERCENT CHANGE WAS +.4 FROM FEBRUARY 1979 TO MARCH 1979, THE LATEST MONTH AVAILABLE.

N.A. = not available.
P=preliminary.

NOTE: All series are in current dollars except where indicated. The index excludes effects of two types of changes that are unrelated to underlying wage-rate developments: Fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes in the proportion of workers in high-wage and low-wage industries.

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry, seasonally adjusted

(1967=100)

Industry division and group	1978									1979			
	APR.	MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MAR. P	APR. P
TOTAL PRIVATE	120.4	120.0	120.6	120.6	120.4	120.8	121.6	122.4	122.9	122.6	123.2	124.7	122.6
GOODS-PRODUCING	106.0	105.1	106.0	106.1	105.4	105.5	106.5	108.0	109.1	108.7	109.1	111.1	106.4
MINING	144.2	143.1	144.0	143.5	145.7	144.4	145.2	148.0	149.1	149.2	149.3	150.6	148.4
CONSTRUCTION	118.8	117.1	122.8	120.2	122.8	122.6	123.8	124.3	126.5	120.6	122.4	131.8	125.3
MANUFACTURING	102.5	101.6	101.7	101.6	101.0	101.2	102.1	103.7	104.6	105.2	105.4	106.0	101.6
DURABLE GOODS	104.2	103.5	103.8	104.0	103.5	103.9	105.5	107.1	108.3	108.8	109.6	110.2	104.2
Lumber and wood products	115.0	111.8	113.6	112.3	110.7	111.6	113.9	115.3	116.2	116.6	115.5	115.9	111.4
Furniture and fixtures	112.5	110.3	109.5	108.3	106.4	106.2	107.5	108.6	109.4	110.0	108.6	109.7	106.4
Stone, clay, and glass products	112.7	111.6	112.4	111.1	109.8	110.1	110.8	112.0	113.3	111.5	112.2	114.9	111.7
Primary metal industries	92.9	93.9	98.1	98.4	95.3	95.5	96.9	99.0	99.2	99.7	100.5	99.9	96.8
Fabricated metal products	103.5	103.3	102.4	102.0	101.8	102.0	103.1	105.2	106.8	106.6	108.0	107.7	101.0
Machinery, except electrical	110.1	109.5	111.3	112.1	110.8	111.5	113.6	114.5	116.9	117.0	119.2	119.9	114.3
Electric and electronic equipment	100.4	99.8	99.8	101.8	101.1	100.1	101.4	102.6	103.4	105.1	106.4	108.0	103.0
Transportation equipment	97.5	96.6	95.8	96.2	96.1	97.7	100.8	102.8	103.8	104.7	105.0	105.1	93.4
Instruments and related products	121.7	120.8	122.4	123.6	123.9	123.9	124.5	125.7	126.9	128.8	130.0	131.6	127.7
Miscellaneous manufacturing industry	102.6	101.5	101.4	99.8	100.6	100.3	100.9	101.8	101.5	102.9	102.3	102.8	97.2
NONDURABLE GOODS	99.9	98.9	98.7	98.1	97.2	97.2	97.2	98.8	99.1	99.9	99.2	99.8	97.9
Food and kindred products	96.4	94.6	94.0	93.6	91.4	91.3	92.2	94.6	96.1	97.0	95.3	97.3	95.4
Tobacco manufacturers	80.2	81.5	84.1	78.6	71.5	74.5	73.5	73.5	77.6	74.8	73.5	76.6	75.1
Textile mill products	93.4	92.6	91.8	91.5	91.2	91.8	91.6	92.4	92.2	93.6	91.3	92.4	87.6
Apparel and other textile products	93.2	91.9	91.4	90.1	90.1	90.1	88.7	90.4	89.8	89.6	89.2	88.8	86.8
Paper and allied products	102.4	101.9	101.9	101.9	99.2	99.0	98.2	100.5	100.7	101.7	102.5	103.1	101.4
Printing and publishing	99.1	98.2	98.6	99.1	98.3	97.8	98.5	100.3	100.1	101.1	101.7	102.6	101.4
Chemicals and allied products	106.5	106.9	106.9	106.6	106.0	106.0	106.2	107.2	107.0	107.8	107.6	107.7	109.3
Petroleum and coal products	122.1	118.4	120.4	121.2	123.2	122.7	123.0	124.7	124.2	123.3	124.2	125.1	128.4
Rubber and misc. plastics products	147.3	146.6	147.0	146.2	145.4	145.0	147.0	149.6	152.3	153.9	154.9	154.5	148.7
Leather and leather products	71.3	70.4	70.1	67.1	69.1	69.6	68.8	67.3	66.5	66.7	64.2	63.5	62.7
SERVICE-PRODUCING	130.5	130.5	130.7	130.7	130.8	131.4	132.0	132.3	132.5	132.3	132.9	134.1	133.8
TRANSPORTATION AND PUBLIC UTILITIES	108.7	109.0	109.4	106.5	107.7	108.2	109.9	110.2	110.3	111.2	111.2	112.4	108.5
WHOLESALE AND RETAIL TRADE	126.8	126.8	126.8	127.6	127.2	127.5	128.2	128.4	128.7	127.6	128.4	129.7	129.9
WHOLESALE TRADE	126.0	125.2	126.1	125.7	126.1	127.1	127.4	127.6	128.5	128.4	128.9	130.6	129.9
RETAIL TRADE	126.6	127.3	127.0	128.0	127.7	127.7	128.5	128.7	128.8	127.3	128.2	129.4	129.9
FINANCE, INSURANCE, AND REAL ESTATE	137.5	136.2	137.9	139.0	139.2	139.6	140.5	140.6	140.9	141.7	142.0	142.4	143.4
SERVICES	144.1	143.8	143.9	144.1	144.1	145.1	145.0	145.6	145.4	145.8	146.6	147.8	148.2

[1] See footnote 1, table B-2.

P=preliminary.

Table B-6. Indexes of diffusion: Percent of industries in which employment[1] increased

Year and month	Over 1-month span	Over 3-month span	Over 6-month span	Over 12-month span
1976				
January	78.2	85.8	87.2	85.2
February	72.4	84.9	85.8	84.0
March	69.5	81.4	82.0	85.2
April	70.1	72.4	75.6	78.8
May	58.1	67.2	68.3	82.6
June	57.8	65.1	71.2	79.9
July	58.4	57.8	63.1	78.5
August	49.1	64.0	65.1	77.6
September	64.8	53.8	66.3	80.2
October	47.1	65.1	73.3	80.8
November	67.4	64.2	78.8	80.8
December	66.6	81.4	81.4	82.6
1977				
January	76.2	83.1	88.1	78.8
February	66.0	86.3	87.8	80.5
March	74.7	81.1	85.2	80.2
April	68.0	79.4	79.4	84.6
May	64.8	76.2	75.9	84.0
June	71.2	68.0	72.1	83.1
July	59.3	63.4	69.8	82.6
August	51.7	58.7	74.1	83.7
September	60.8	62.5	72.1	82.6
October	60.5	73.8	77.9	81.1
November	73.8	75.3	82.0	81.1
December	72.1	79.7	83.1	80.8
1978				
January	69.8	80.2	85.5	80.5
February	70.3	80.2	79.9	79.1
March	70.1	75.9	77.9	77.6
April	62.8	67.4	68.9	78.5
May	56.4	63.7	67.7	80.5
June	67.2	62.5	59.6	82.6
July	54.9	57.0	61.3	82.0
August	51.7	49.7	74.4	77.6
September	57.6	58.7	77.9	75.6p
October	70.6	75.6	83.1	70.6p
November	80.2	85.5	84.6	
December	79.7	87.2	85.8p	
1979				
January	74.1	82.3	77.6p	
February	65.1	76.2p		
March	60.8p	58.1p		
April	48.8p			
May				
June				
July				
August				
September				
October				
November				
December				

[1] Number of employees, seasonally adjusted, on payrolls of 172 private nonagricultural industries.
p = preliminary.

Senator BENTSEN. Thank you, Commissioner. It seems to me you added a word there in your statement. You said, "Try to answer." Is that it?

Ms. NORWOOD. That is correct.

Senator BENTSEN. I think I can understand that because these are muddled figures, but, Commissioner, for a long time we have had many economists forecasting that we were going to have a rise in unemployment. And that hasn't been true at all. We have seen a rather amazing increase in employment.

But now we see something quite different. We see a very substantial decrease in the employed and a very minor increase in the actual percent cited for unemployment.

What would have been the result if you hadn't had that major decrease in employment? What would happen to your unemployment percentage?

It would have gone up substantially more if you hadn't had that decrease; wouldn't it?

Do I make myself clear?

I meant labor force.

Ms. NORWOOD. In the labor force.

Senator BENTSEN. I meant the labor force; I'm sorry.

Ms. NORWOOD. If you were to assume in the household survey that the people who were not employed were all in the labor force looking for jobs, certainly, the unemployment rate would have gone up. But as I pointed out in my statement, Mr. Chairman, the figures on the labor force are unusually erratic compared to all of the other data in the household survey.

We have always felt that we need to look at several months of data in order really to make a judgment of what is going on in the labor force. That is what makes us wonder and worry about the very large drop in employment that the household survey showed.

Senator BENTSEN. Well, this major break that we are seeing in the increase of the employed, again, it was forecast by many. Does that look like the beginning of a trend that leads into a recession?

Ms. NORWOOD. I think that is very hard to say. Let us look at the establishment survey data, for example, which really were relatively flat; that is, they showed essentially no change. In order to assess the importance of the lack of employment growth, one needs to look at the employment data in relation to the data on hours.

The hours data dropped considerably in the month of April. But there were special reasons for that. It appears clear that one of the major reasons for the drop in hours was the trucking strike. You will recall the survey week was the week that the trucking strike-lockout settlement was reached.

Many of the people who had been on layoff were called back to work and so worked part of the week.

The hours data, therefore, will reflect—in the payroll survey—the days or the hours in which many of those people during the survey week were not working, were on temporary layoff. So it is very difficult to get very much out of this combination of employment and hours data.

And I would be, I think, very reluctant to suggest that one can determine whether this is or is not essentially a turning point. Because of these special circumstances, I don't think we have enough data to do that.

Senator BENTSEN. Well, let's look at some other points and see if they mesh together and tell us something. You have a substantial drop in productivity. As you go into recession, traditionally, people hold onto employees, as employers anticipate and hope it will turn around. And that is one of the contributing factors to a drop in productivity.

On the other side, we saw in the first quarter a drop in consumer demand. And the very latest figures I get by talking to the Association of Retail Merchants and that sort of thing, they tell me their sales are not very exciting. They don't think it is just a matter of February lasting 6 months this year. They think it is more than that.

Well, if you put that together with the drop in productivity, and even with all that, a minor increase in unemployment and a drop in the labor force, it seems to me that all of those together could be foretelling or forecasting the start of a recession.

Ms. NORWOOD. Certainly, that is possible. I think it is important to note that the figures showing the slowdown in GNP and, therefore, coupled with that the very large drop in productivity were, of course, preliminary figures. Our experience has been that the preliminary GNP data are frequently revised upward.

Certainly, we have found this month in the establishment survey that the preliminary figures for last month were revised upward slightly.

If the figures for output are revised upward, which may happen, there will be a change, I think, not a turnaround. But what now appears to be poor performance may not look quite as poor.

If you look at other data, that is non-BLS data, on how the economy is operating, you find for the first quarter that there are as many things that are going up as going down. That is, those data show quite a mixed picture. We don't yet have any data for April.

Senator BENTSEN. I know the household survey and the establishment survey don't always go in tandem, but this kind of disparity seems quite extreme. Do you have any further comments to try to explain that?

Ms. NORWOOD. I would have preferred for them both to show the same thing. I think that our experience has been that the sharp drops in the current population survey are probably somewhat exaggerated. As I have said, we are suspicious of the labor force figure this month.

You mentioned in your opening statement the good news that usually occurs in April. That is another factor that we have to keep in mind. In the last 3 years, we have had really an extraordinary growth between March and April. The seasonally adjusted figures, therefore, may perhaps be a little exaggerated because of the very large increase in the last 3 years. We can't be certain of that.

That's why I think to interpret the data from the household survey, we really need to wait for another month or two.

In the case of the establishment survey, it seems fairly clear that for the month of April there was a slowdown at least in the increase,

the growth, of employment. If that were coupled with strong hours reduction figures that didn't have these special characteristics, I think I might be willing to go a step further.

But I really think we don't know how to interpret those hours figures.

Senator BENTSEN. Even though you think the figures are somewhat suspect, the decline of 670,000 in total employment completely wipes out the first quarter's gains, as I recall. When have we last had that kind of a decline in that magnitude?

Mr. STEIN. It was in 1968, 1 month of 1968.

Senator BENTSEN. In 1968?

Mr. STEIN. Yes.

Senator BENTSEN. As I recall, that employment drop led into a declining economy that I used to my advantage to run for the Senate.

Ms. NORWOOD. I should point out, Senator, that we looked for drops in employment that may have occurred historically at the peak of the cycle and there is no evidence going back, I guess, as far as 1948, of this having occurred at a cyclical peak. That is another reason why we think we ought to wait for another month's data—because there may be some aberration here.

Senator BENTSEN. Well, I have some other questions, but I will defer to my colleague, Senator Proxmire.

Senator PROXMIRE. Thank you very much, Mr. Chairman.

Commissioner Norwood, part of the news that comes from your report here is the overall effect this has on aggregate demand. You have a fall-off in the money wage, not just the real wage, but money wages fell as I understand it in April, a 2-percent drop in real wages, because hours were shorter and because of inflation.

That 2 percent drop is an extraordinarily big fall in 1 month. A drop in hours and, therefore, a bigger falloff still in the weekly wage and a falloff in employment as you say, if the figures stand up for April. Therefore, there will be an even more massive dropoff in total personal income, so that the effect on aggregate demand at least the ability of people to buy things because their income is down should be somewhat significant.

Would you say that is correct?

Ms. NORWOOD. Well, I think that is probably true. The question is whether this was just a particular situation which will turn around or not. And I guess the other factor that I would add is that the debt to income ratio seems to have changed considerably; consumers seem quite willing to raise the ratio of their debt to their personal income these days.

Senator PROXMIRE. That's true, but you wonder how long that can go on. There have been some people that feel that it is going to turn around. That has been in part because the feeling people have is the one hedge they have against inflation is to buy a home. So hundreds of thousands are doing that.

And, of course, every person who does that makes a very large debt. And on a per capita basis, it translates into an extraordinary situation.

But housing starts also seem to be tailing off somewhat.

And also, it has been called to my attention in the Wall Street Journal, current Wall Street Journal, it says: "Consumer credit

expanded $3.73 billion in March, compared with a $3.31 billion increase in February. New extensions of credit and liquidation of old debt rose to record levels."

That suggests again that we may be reaching a peak on that.

Let me get into your prepared statement. You summarize the reasons why these figures might not be reliable as a guide even if they are accurate. You say, No. 1, the labor dispute in the trucking industry. How big a distorting element was that actually in the week in which the survey was taken?

Ms. NORWOOD. We have tried to estimate that, Senator, and I wouldn't want to say that this is a fully accurate figure, but we estimate that it probably could not have been more than 100,000. And that would not make a change in the employment level in the establishment survey that would be statistically significant.

Senator PROXMIRE. That would be one-tenth of 1 percent at most?

Ms. NORWOOD. Yes.

Senator PROXMIRE. That wouldn't be a big one.

Holidays in the survey period is the second item. Can you elaborate on that a little bit? How distorting an element could that have been?

Ms. NORWOOD. That is very difficult to say. We did note in the household survey that there was a large increase in the number of people who had a job, but were on vacation. And we could speculate, but it would be pure speculation, that there may have been people without jobs who decided to wait before searching for a job since both Easter and Passover occurred that week.

Senator PROXMIRE. Would they be considered——

Ms. NORWOOD. We don't know.

Senator PROXMIRE [continuing]. Not employed if they were on vacation?

Mr. STEIN. If they had jobs, they would be considered employed, but I think the big impact of the holidays was on hours of work. We had Good Friday in the survey with something like 8 or 9 million people away from their jobs that day, and some were not paid for the time they took off.

Senator PROXMIRE. That wouldn't have a significant effect on your unemployment.

Mr. STEIN. Not on unemployment.

Ms. NORWOOD. But it could have an effect on the labor force. That was the point I was making.

Senator PROXMIRE. How would it have an effect on the labor force?

Ms. NORWOOD. It is possible there were people who decided to wait before they looked for jobs. It is very hard to tell.

Senator PROXMIRE. You mean people who were unemployed were on vacation?

Ms. NORWOOD. That's possible. We don't have any data on that. The data we have deal with people who were with jobs but were on vacation.

Senator PROXMIRE. I hadn't thought of that. Maybe that is a kind of a new idea for me; if you are unemployed, you take a vacation anyway. You take a vacation from looking for work so that you drop out of the labor force.

Ms. NORWOOD. I certainly wouldn't want to suggest that that is one's thinking in any way. I was just trying to point out there may be many

factors surrounding this. There were school vacations, people may have been busy. It is very hard to tell.

Senator PROXMIRE. At any rate, that doesn't sound as if it is a major factor. Maybe it is in the same category as the trucking industry thing. Maybe one-tenth of 1 percent, something of that kind.

Ms. NORWOOD. I don't think it is major.

Senator PROXMIRE. How about bad weather? We all know about this in January and February, but in April, maybe it affected people from the flooded areas. It doesn't seem to me it is significant. How significant was it?

Ms. NORWOOD. We don't know. It was not enormously large. I'm not sure.

Senator PROXMIRE. Mississippi was the one State we heard a lot about.

Ms. NORWOOD. Texas.

Senator PROXMIRE. Texas. Did that disrupt the situation so that other people were thrown out of work because of the floods in a significant way?

Ms. NORWOOD. We have no way of knowing that, really. It certainly must have disrupted some employment activity in those States where the harsh weather occurred.

Senator PROXMIRE. As the chairman has pointed out, in the last category, there are possible measurement problems in the household survey estimates of the labor force. There does seem to be a tremendous discrepancy there with the establishment data; 670,000 jobs down in the household survey, 72,000 more jobs, additional jobs, increased jobs, in the establishment survey. That is a discrepancy of about 800,000.

I don't recall a bigger discrepancy than that. And what are the kinds of mistakes that could have been made in the household survey that would cause that, or the distortions?

Ms. NORWOOD. Well, first of all, of course, as I have said, 350,000 of the employment decline took place in sectors not covered by the establishment survey. So that reduces the discrepancy considerably. But it is still a large discrepancy, I would agree.

We had many erratic movements in the labor force component; fewer, I think, in employment. Is that right?

Mr. STEIN. Yes.

Ms. NORWOOD. As I indicated earlier, in the seasonally adjusted process, we do place greater weight on the experience of the most recent years. There were very large increases between March and April in those years. So, there may have been some slight overadjustment there.

Senator PROXMIRE. When was the last time a discrepancy of this kind occurred? And in hindsight, on the basis of later figures, what did we discover about that discrepancy?

Ms. NORWOOD. I can have a review of the data made, and we can supply that for the record, Senator. We have had cases where the labor force has gone up or down, and the next month, there has been essentially a correction of that. And when one has looked at the average over several months, the data have seemed to be more consistent.

[The information referred to follows:]

The last time a large discrepancy between the employment changes in the household and establishment surveys occurred was in July 1978. Between June and July, total employment declined by 395,000—after having expanded by

705,000 in the prior month—and nonfarm payroll employment rose by 265,000. After revised seasonal factors were used to calculate the seasonally adjusted employment changes and the preliminary establishment numbers were updated, the household survey showed a decline of 195,000 in July (following a 690,000 increase in June), while the payroll series posted an increase of only 20,000.

Senator PROXMIRE. Let me ask this: By and large, over the years, has the household survey or the establishment survey been the more reliable on the basis of further developments?

Ms. NORWOOD. We feel that when there is a change going on in the economy, we prefer to rely on the establishment survey.

Senator PROXMIRE. So that the more likely situation is that we had relatively stable employment rather than a big dropoff in employment at that point. That would be your conclusion?

Ms. NORWOOD. I think that was certainly true in April; yes. I would suggest that the situation was either relatively stable or declined somewhat, but not so large a decline as is shown in the household survey. Very definitely.

Senator PROXMIRE. Now, I think one of the most sensational developments here, and depressing developments, too, is the development that Senator Bentsen has been the principal exponent of in the Senate and the Congress. And that is productivity where you show an appalling result there.

You say that productivity in the private business economy declined sharply from the fourth quarter of last year—4½ percent at an annual rate.

Then, you point out this decline coupled with an 11-percent increase in hourly compensation resulted in a rise in unit labor cost of over 16 percent.

Now, when you take the producer index which was, I think, extremely discouraging for April because——

Ms. NORWOOD. Yes.

Senator PROXMIRE [continuing]. It indicated the volatile food measure was encouraging, but that was almost completely offset by everything else, and as those other industrial failures and so forth are much more stable and likely to continue.

When you combine that with the 16-percent rise in unit labor costs, that is really terribly bad news for inflation, is it not?

Ms. NORWOOD. I would quite agree. It is certainly not very encouraging, though I would emphasize that there may be some revisions of those data if the GNP is revised. But I think that even after revision, they will be high.

Senator PROXMIRE. Is there any explanation for that drop of 4½ percent at an annual rate in the fourth quarter of last year? Is there any temporary element here, any reason why that figure may be a distortion and may not be permanent?

Ms. NORWOOD. Well, there are always several ways of looking at data. There certainly may have been in the first quarter some weather effects. There have been a lot of estimates about whether the reduction in output was not affected in January and February in particular by bad weather.

There appears to have been an expansion by businessmen in orders, unfilled orders. In fact, this morning's newspaper suggested that the McGraw-Hill survey showed that businessmen for 1979 are planning some considerable increase in investment, plant, and equipment.

Senator PROXMIRE. That would be helpful. But this is certainly a discouraging figure.

Just one more question before I yield back to the chairman. That 11-percent increase in hourly compensation seems to be unusual. Most of the settlements seem to be better. The guideline is 7 percent, is it not? And the most pessimistic conclusion from the truckers' settlement was well below 11 percent, I thought. It may be fairly high, well above 7, too, but it is certainly below 11.

Isn't that an unusual figure? I'm shocked to see it that high.

Ms. NORWOOD. Well, in the first quarter, of course, average hourly compensation was affected both by changes in the tax law, social security in particular, and also by the minimum wage change in January.

Senator PROXMIRE. The minimum wage was only about a 9-percent increase.

Ms. NORWOOD. Yes; and I don't know what the relationship is, but nevertheless, those two developments in the first quarter probably made those numbers higher than they would otherwise have been, particularly the social security tax increase.

Senator PROXMIRE. I will yield back to our chairman.

Senator BENTSEN. Commissioner, teenage unemployment increased by approximately 1 percent. That was in April, before your summer vacation starts. What accounts for that kind of an increase? Do you see a trend there?

Ms. NORWOOD. I don't know what accounts for the increase. I do know that the unemployment data for teenagers tend to jump up and down, as you can see if you look at time series. But I have no further explanation of that, sir.

Senator BENTSEN. Well, I know you have some new studies on working women, and I see some interesting statistics developing. I see a large increase in women moonlighters from 1970 to 1978, while the proportion of men in that category has dropped. What do you think brings that about? You have a differential in wages. Do you think women are trying to make up for that differential?

Ms. NORWOOD. I think that is rather hard to say. I could speculate, but I think it would be pure speculation, sir. I just don't know.

Senator BENTSEN. Well, you have an increase in self-employed women. I see in 1978, they average 1.8 million or 1 out of every 20 employed women. How does that compare with the number of self-employed men percentagewise?

Ms. NORWOOD. We will be glad to look that up. I don't have that figure in my head. I'm sure it is much lower.

[The information referred to follows:]

About 1.9 million women, or 5 percent of all working women, were self-employed in 1978. The comparable figures for men are 6 million and 10.8 percent.

Senator BENTSEN. Well, Commissioner Norwood, I look at all of these numbers, and they are not very encouraging. Do you have any good news you can tell me as I complete my questioning?

Ms. NORWOOD. The rate of increase in food prices has declined in the month of April.

Senator BENTSEN. What was that? Three-tenths of 1 percent?

Ms. NORWOOD. I think there were some significant slowdowns, certainly in beef and veal and in vegetables. Vegetables and beef and veal,

those are extremely important staples in family food. And I think that is encouraging, as those changes do show up in retail stores fairly rapidly.

Senator BENTSEN. I have nothing more.

Senator PROXMIRE. I would like to follow up a little bit in that particular area. You do show, as you say, a drop in consumer foods for April. Although that followed a period of time from September of last year through March in which there were very large increases in consumer foods on the wholesale level every single month—1.1, 1.6, 0.8, 1.2, 1.8, 1.6, and 1.2. So the average, even with this dropoff, still is extremely high.

And we have the biggest increase in other items under finished goods, wholesale price index, that we have had. This goes off the chart.

There is nothing in the last year, at least, as high as 1.3 in a single month, nothing in intermediate goods as high as 1.5 total, which means, of course, higher prices later on.

We do seem to have good news, however, in the crude goods, not only in the foodstuffs, but in others.

I notice that was a dropoff of one-half of 1 percent, and it went down. That is the only time that this happened. How significant is that likely to be, and does that cover any energy items at all?

Ms. NORWOOD. It has some energy in it, and it has got a lot of scrap in it, iron and steel scrap, which had quite an effect. The important thing to remember about the crude goods indexes are that they are very volatile. And a 1-month decline needs a couple more months before we can be sure that it is really there.

Senator PROXMIRE. So that they have the same characteristics as food generally. They go up and down. One month means less than the quarterly average?

Ms. NORWOOD. Yes.

Senator PROXMIRE. Let me ask you just a couple other things. I wonder why the average weekly hours of work should be down in virtually every area, mining, construction, manufacturing, except wholesale and retail trade. Yet, almost half the industries are still hiring more people than they are laying off.

The diffusion index isn't as good as it was, but it is still almost 50 percent, 49 and a fraction. That seems to me to be contradictory. If half the industry are hiring people, we shouldn't have the dropoff in weekly hours as well as the dropoff in employment.

Ms. NORWOOD. Of course, one of the most important reasons for the decline in hours was that Good Friday occurred as well as Passover. A lot of workers are not paid for religious holidays that they take off. And that would show up in the payroll survey as a decline in hours.

And then, I think there was some decline in hours due to the effects of the Teamsters' strike lockout.

Senator PROXMIRE. I have one other question. You have been nominated for appointment, as I understand it. And I think, as I have said before, that is a superb nomination. Certainly, you are well qualified in every way. But I would like to ask you a question that came up when Mr. Shiskin took over the job you are now about to take over. And he was reported to have said that a large proportion of the people in the Bureau of Labor Statistics didn't seem to know what

they were doing, didn't seem to have a clear-cut idea of what their assignments were; there was some disarray and some lack of organization in the Bureau of Labor Statistics.

Has that been corrected completely? Do you feel it is an organization where everybody has a good, clear idea of what their mission is and are doing it?

Ms. NORWOOD. I think, Senator Proxmire, that Mr. Shiskin changed his mind shortly after he said that when he began to see some of the work that was being done in the Bureau.

I think that the Bureau has been in recent years one of the best managed organizations in the Federal Government. It also has a staff which compares favorably professionally with many other organizations in town.

I think, of course, that management can be improved. Everything can be improved. But I would certainly be willing to place the Bureau of Labor Statistics and its staff against any other organization in this city. And I'm sure we would come out very well.

Senator PROXMIRE. Well, it has a fine reputation.

I am somewhat disturbed, as I know you are, when we have situations such as we have now with the very elaborate, expensive, comprehensive survey, household survey, we have made, 55,000 people questioned as I understand it, and yet we do seem to have a situation where neither you nor we, nor the public generally, can place much reliance on the precision of their findings.

Now, maybe that is just the human condition. Maybe that is just something we have to accept.

But it is discouraging that with that much money being spent, that comprehensive a survey being taken, we don't have more reliable results.

Ms. NORWOOD. Senator Proxmire, I think it is important to recognize that statistical series cannot really provide revealed truth. I am sure you certainly recognize that.

You know, when you consider that the Current Population Survey for many years was run for a cost of something like $9 million. Now because of the expansion provided not for national data, but rather because of the special interest in local area data, the survey has been expanded to cost somewhere around $20 million.

And the establishments survey costs much less than that, at least in terms of the Federal Bureau of Labor Statistics funds. The States do add something to that.

I think we cannot expect too much. We do plan to review the Levitan Commission's report, and the Secretary will be reporting to the Congress after that review has been completed. I am sure he will make some recommendations for improvement.

These improvements will, however, cost contsiderable amounts of money, I think.

Senator PROXMIRE. But the elaboration of the fact that 55,000 people are surveyed, it is true, in order to get regional and State information and city information often for allocating funds. But, nevertheless, that does contribute to a more comprehensive and somewhat more accurate survey, does it not?

Ms. NORWOOD. Yes; it does. But because we have not been in a position to redesign the survey completely to get the most efficiency from the supplements for the national data, we have not been able to improve the accuracy of the national data as much as we would like.

After the 1980 census, we will be redesigning the Current Population Survey so that the national sample will be made up of the samples for the individual States. And I think we will be able to get more accuracy with that approach.

But that is a large undertaking, and it must await the early results of the 1980 census.

Senator PROXMIRE. Thank you, Mr. Chairman.

Senator BENTSEN. Thank you very much, Senator Proxmire.

Thank you very much, Commissioner, for your statement.

Ms. NORWOOD. Thank you, sir.

[Whereupon, at 10:50 a.m., the committee adjourned, subject to the call of the Chair.]

EMPLOYMENT-UNEMPLOYMENT

FRIDAY, JUNE 1, 1979

CONGRESS OF THE UNITED STATES,
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The committee met, pursuant to notice, at 10:10 a.m., in room 5110, Dirksen Senate Office Building, Hon. Paul S. Sarbanes (member of the committee) presiding.

Present: Senators Sarbanes and Javits; and Representative Mitchell.

Also present: John M. Albertine, executive director; Louis C. Krauthoff II, assistant director-director, SSEC; M. Catherine Miller, professional staff member; Mark Borchelt, administrative assistant; and Charles H. Bradford, minority counsel.

OPENING STATEMENT OF SENATOR SARBANES, PRESIDING

Senator Sarbanes. The committee will come to order.

We are very pleased this morning to have Ms. Janet Norwood, Commissioner of the Bureau of Labor Statistics, before the Joint Economic Committee to comment on the employment situation, the latest monthly figures just having been issued this morning.

Commissioner, I am very pleased to welcome you and particularly pleased to be able to do so, dropping the adjective, "acting" from in front of Commissioner, and once again let me congratulate you on your appointment. I think it's a splendid one.

I also want to underscore the comment you made when you were testifying on the employment situation last month in which you commented that you regarded the Bureau of Labor Statistics in recent years as one of the best managed organizations in the Federal Government with a staff which compares favorably and professionally to many other organizations in town.

You then went on and said that the management could be improved—everything can be improved—but that you would be prepared to place the Bureau and its staff against any other organization in the city, and that you would come out very well, and I agree with that evaluation.

I simply wanted to add my own view on the record to that expressed last time by Senator Proxmire, who I think was the one questioning you at that time. We're very anxious for you to get on with your statement. I do hope if you do not cover them in the statement that you

will, as an addendum, address yourself to the figures you bring us this morning. They relate to the particular figures which were in the morning papers with respect to the chief economic indicators, which as the headlines say, plunged in April, 3.3 percent. The story then went on with a dire warning, pointing out that this was the largest drop since 1974, just prior to moving into that very sharp recession which we experienced in 1974 and 1975.

I expected, frankly, to come this morning and face a presentation of figures from you that would be of deeper concern than the ones you bring us, and I think it would be helpful if you would explain, to some extent, why we have these deeply concerning figures with respect to the chief economic indicators that are not borne out substantially by the unemployment rate figures and the other employment figures you bring us this morning.

We'd be very pleased to hear from you.

STATEMENT OF HON. JANET L. NORWOOD, COMMISSIONER, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR, ACCOMPANIED BY W. JOHN LAYNG, ASSISTANT COMMISSIONER, OFFICE OF PRICES AND LIVING CONDITIONS; AND ROBERT L. STEIN, ASSISTANT COMMISSIONER, OFFICE OF CURRENT EMPLOYMENT ANALYSIS

Ms. NORWOOD. Thank you, Senator. I am glad to have this opportunity to offer the Joint Economic Committee a few brief comments to supplement our Employment Situation press release issued this morning at 9 a.m.

The overall employment situation was little changed between April and May. Total and nonfarm payroll employment rose slightly, while the unemployment rate remained at 5.8 percent. Average weekly hours were up from their April level which had been affected by several special factors, but were still significantly below the average for March.

Nonfarm employment, as measured by the survey of employers, moved up by 170,000 over the month after showing no change between March and April. The small 2-month gain in payroll employment was in sharp contrast to the average monthly gains of about 350,000 in the prior 6-month period. The April–May increase in payroll jobs reflected a continuation of the return to work in the transportation industry following the trucking strike-lockout, some temporary expansion in the street and highway sector of the construction industry, and a continuation of the long-term growth in trade.

Employment in manufacturing edged down for the second straight month. The factory workweek rebounded sharply from the April level—which was affected by holidays and the truck strike-lockout—but was still 0.7 hour below its March level. The cutback in hours since March was widespread throughout the major hard and soft goods manufacturing industries.

The index of aggregate hours in the private nonfarm economy which reflects trends in both employment and the workweek was 123.7 in May compared with 124.7 in March. The decline in manufacturing industries was somewhat larger.

For the second consecutive month fewer than half of the 172 industries comprising the BLS diffusion index showed employment gains.

Total employment, as measured by the household survey, edged up slightly in May, following a sharp decline the previous month. Both total employment and the civilian labor force were about one-half million below March levels, in contrast to rapid gains through the first quarter of 1979. However, the unemployment level and rate have shown no significant change over the past 2 months. The jobless rate has been in the 5.7–5.9 range each month since August 1978. Moreover, there have been no clearly persistent trends for any of the major demographic groups in the labor force in recent months. The rate for black workers in May continued to be more than twice that for whites, and the teenage rate was more than four times as high as that of adult workers 25 years and over.

From the perspective of the March to May changes, both the household and the employer survey indicate a slowdown in employment growth. The employer survey also reveals a shortening of the average workweek, both for the total private economy and for the manufacturing sector. The weaker demand for labor was further reflected in labor turnover data for manufacturing. As reported yesterday by the Bureau of Labor Statistics, the factory layoff rate rose between March and April, while the new hire rate declined. At the same time, there was no significant change through May in the jobless rate for all civilian workers or for any of the major component groups. The stability in unemployment was confirmed by weekly data on initial and continuing claims for unemployment insurance.

UNEMPLOYMENT IN FAMILIES

We can gain some insights into the social effects of labor market status by focusing our attention on persons in a family context. I think the committee may be interested in data the BLS regularly publishes each quarter on the employment status of individuals in relation to the work status of the people with whom they live.

In the first quarter of 1979, husbands and wives were present in 48 million families. Both were employed in about 40 percent of these families. In another 40 percent of these families, the husband but not the wife was employed. In the remaining 20 percent of the families, the wife had a job while the husband did not (5 percent), or neither spouse was working (15 percent).

Working patterns in the 8 million families maintained by women without a husband were, however, strikingly different. In half of these families, the woman herself was not employed. In two out of five of these cases, there was no relative of working age.

These data help us to understand how the impact of unemployment differs among families. For example, 85 percent of the wives who were unemployed lived in a family with some other jobholder, and 50 percent of the unemployed husbands were in families with an employed person.

As one would expect, however, in families maintained by a woman with no husband present, only 15 percent of the unemployed female

heads and 65 percent of the unemployed relatives in such families lived with a person who had a job.

The "person in the family" data also reveal some other interesting relationships. One statistic is that in the first quarter of 1979, the unemployment rate for wives whose husbands were also unemployed was 20 percent; this compares with a rate of only 5 percent for wives with employed husbands. This pattern occurs, in part, because many characteristics, such as education and skill levels, tend to be comparable within families. Moreover, all members of families living in areas of high unemployment will tend to experience greater than average difficulty in obtaining a job.

PRODUCTIVITY AND EMPLOYMENT COST RELEASES

Last week, BLS also issued two press releases on productivity and wages for the first quarter of this year. Revised data on productivity and costs in the private business sector confirms the poor performance presented by the preliminary data issued earlier. Productivity declined 4.6 percent at an annual rate in the private business sector and was down 3.2 percent in manufacturing. Unit labor costs rose 16.4 percent in the private business sector, as hourly compensation increases reflected rises in employers' social security contributions. Looking over the past four quarters eliminates the first quarter distortion from the once per year increase in social security contributions. Since the first quarter last year, hourly compensation in the private business sector increased 9.5 percent and unit labor cost rose 9.1 percent.

Wage and salary rates measured by the Employment Cost Index rose 2 percent in the first quarter 1979, about the same as the 1.9-percent rise for the same quarter a year earlier.

The pay gain for construction workers was among the lowest recorded in the first quarter 1979, reflecting the industry's seasonal collective bargaining pattern which concentrates pay change activity in the spring and summer. In contrast, pay advanced at a faster rate for lower paid employment groups such as service workers (3.2 percent), workers in the South (2.6 percent), and workers in retail trade (2.3 percent).

Returning to this morning's release, in summary, I believe that a clear slowdown in employment growth has occurred since March. As I indicated at last month's hearing, the April data were difficult to interpret because they were affected by the trucking strike, holidays, and bad weather. Some small upward changes from the unusual April conditions were registered in May. However, over the 2-month period from March to May, the business survey showed a clear slowdown in employment growth as well as a reduction in average weekly hours; while the household survey showed a drop in employment and the labor force, with no change in the unemployment rate.

Thank you.

[The table attached to Ms. Norwood's statement, together with the Employment Situation press release referred to, follows:]

UNEMPLOYMENT RATES BY ALTERNATIVE SEASONAL ADJUSTED METHODS

Month and year	Unadjusted rate	Standard X-11 method					X-11 ARIMA method		Range (cols. 2-8)
		Official	Concurrent	Stable	Total	Residual	Extrapolated	Concurrent	
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1978:									
May	5.5	6.1	6.1	6.2	6.2	6.2	6.1	6.1	0.1
June	6.2	5.9	5.9	5.8	5.9	5.8	5.8	5.8	.1
July	6.3	6.1	6.1	6.1	6.2	6.2	6.1	6.1	.1
August	5.8	5.9	5.9	5.9	5.9	5.0	5.9	5.9	.1
September	5.7	5.9	5.9	5.9	5.9	5.0	5.9	5.9	.1
October	5.4	5.8	5.8	5.8	5.8	5.9	5.8	5.8	.1
November	5.5	5.8	5.8	5.8	5.7	5.8	5.8	5.8	.1
December	5.6	5.9	5.9	6.0	5.8	6.0	5.9	5.9	.2
1979:									
January	6.4	5.8	5.8	5.8	5.7	5.5	5.8	5.8	.3
February	6.4	5.7	5.7	5.7	5.7	5.5	5.7	5.8	.3
March	6.1	5.7	5.7	5.8	5.7	5.6	5.7	5.7	.2
April	5.5	5.8	5.8	5.7	5.7	5.8	5.8	5.8	.1
May	5.2	5.8	5.8	5.8	5.8	5.9	5.8	5.7	.2

SOURCE: U.S. Department of Labor, Bureau of Labor Statistics, May 1979.

NOTES TO TABLE COLUMN NUMBERS

(1) *Unadjusted rate.*—Unemployment rate not seasonally adjusted.

(2) *Official rate (standard X-11 method).*—The published seasonally adjusted rate. Each of the 3 major labor force components—agricultural employment, nonagricultural employment and unemployment data—for 4 age-sex groups (males and females under and over 20 years of age) are separately adjusted then added to derive seasonally adjusted total figures. Teenage unemployment and nonagricultural employment are adjusted by the standard X-11 method's additive option, while all other series are adjusted by the multiplicative option. Adult male unemployment is adjusted multiplicatively using the prior trend adjustment feature of the X-11. The rate is computed by adding the 12 components to a civilian labor force total, and dividing and derived civilian labor force into the unemployment total. These series are revised at the end of each year. Factors for the current year are computed at the beginning of the year for the 12 succeeding months, and published in advance.

The current "implicit" factors for the overall unemployment rate, derived by dividing the original unemployment rate by the seasonally adjusted rate for the months of 1978, are:

Jan	111.1	July	102.1
Feb	112.0	Aug	98.5
Mar	106.7	Sept	97.3
Apr	94.6	Oct	93.1
May	89.5	Nov	95.7
June	105.6	Dec	95.5

(3) *Concurrent (standard X-11 method).*—The procedure for computation of the official rate is followed, except that the data are re-seasonally adjusted by the standard X-11 method each month as the most recent data become available, i.e., the rate for January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are as revised to incorporate experience through December 1978.

(4) *Stable (standard X-11 method).*—The stable seasonal option of the standard X-11 method uses final seasonal factors computed as an unweighted average of all seasonal-irregular ratios for the entire span of the period, January 1967–December 1978. In essence, this procedure assumes that seasonal patterns are

relatively constant from year-to-year. The unweighted average is updated and series revised at the end of each year.

(5) *Total (standard X–11 method).*—This is an alternative aggregation procedure, in which total unemployment and labor force levels are directly adjusted by the standard X–11 (multiplicative option) to derive the rate. The series are revised at the end of each year.

(6) *Residual (standard X–11 method).*—The labor force and employment levels are adjusted directly, with the level of unemployment derived as a residual. The rate is computed by dividing the residual unemployment level by the directly adjusted civilian labor force. The series are revised at the end of each year.

(7) *Extrapolated (X–11 ARIMA method).*—Data for the 12 component groups of the unemployment rate are estimated using ARIMA (autoregressive, integrated, moving average) models. The enlarged series is then seasonally adjusted with the X–11 program, and the rates are computed as in the official procedure. The series are revised at the end of each year. Factors for the current year are extrapolated at the beginning of the year for the 12 succeeding months.

(8) *Concurrent (X–11 ARIMA).*—The procedure for computation of the X–11 ARIMA rate is followed, except that the data are re-seasonally adjusted each month as the most recent data become available, i.e., the rate for January 1979 is based on adjustment of data for the period, January 1967–January 1979. The rates for the current year are shown as first computed, while data for 1978 are revised to reflect experience through December 1978.

Methods of Adjustment.—The standard X–11 method was developed by Julius Shiskin at the Bureau of the Census. The method is described in X–11. Variant of the Census Method II Seasonal Adjustment Program, by Julius Shiskin, Alan Young, and John Musgrave, (Technical Paper No. 15, Bureau of the Census, 1967).

The X–11 ARIMA method was developed at Statistics Canada by Estela Bee Dagum and is the official method for seasonally adjusting the Canadian labor force series. A general description of the method is contained in A Comparison and Assessment of Seasonal Adjustment Methods for Employment and Unemployment Statistics, by Estela Bee Dagum (Background Paper No. 5, U.S. National Commission on Employment and Unemployment Statistics, February 1978).

News
United States Department of Labor
Bureau of Labor Statistics Washington, D.C. 20212

Contact: John Bregger (202) 523-1944
523-1371
Kathryn Hoyle (202) 523-1913

USDL 79-391
TRANSMISSION OF MATERIAL IN THIS RELEASE IS EMBARGOED UNTIL 9:00 A.M. (EDT), FRIDAY, JUNE 1, 1979

THE EMPLOYMENT SITUATION: MAY 1979

Employment rose slightly in May, and unemployment was unchanged, the Bureau of Labor Statistics of the U. S. Department of Labor reported today. The Nation's unemployment rate was 5.8 percent, the same as in April; it has been in the 5.7 to 5.9 percent range for the past 10 months.

Total employment--as measured by the monthly survey of households--edged up by 140,000 in May following a very sharp decline in April. At 96.3 million, total employment was 2.4 million higher than a year ago.

Nonfarm payroll employment--as measured by the monthly survey of establishments--rose by 170,000 in May to 88.4 million. Nonfarm payroll jobs have advanced by 2.9 million since May 1978. Average weekly hours rebounded somewhat from depressed April levels but were still considerably below March and year-earlier levels.

Unemployment

Both the unemployment rate, 5.8 percent, and the number of unemployed, 5.9 million, were the same as in April, and have remained near the levels which have prevailed since August 1978. The May jobless rates for adult men (3.9 percent), adult women (5.8 percent), and teenagers (16.8 percent) were little changed from April and also have not shown much variation since last August. Unemployment rates for whites (5.0 percent) and blacks (11.6 percent) and most other worker groups were also at or near the levels which have been in evidence over the past several months. (See tables A-1 and A-2.)

Total Employment and the Labor Force

Total employment advanced very slightly in May (140,000) to 96.3 million. Because of the large employment decline in April, the May level was still more than half a million below that of March. Because of strong growth in the months prior to April, employment in May was 2.4

million higher than a year earlier. Over-the-year job gains among adult women were especially pronounced (1.5 million); adult men posted an employment advance of 1.0 million. Employment among teenagers was down slightly over the year, in part a reflection of their declining population. (See table A-1.)

The civilian labor force also advanced very slightly over the month to 102.2 million and was 2.2 million higher than May 1978. At 63.4 percent, the civilian labor force participation rate was about unchanged from its April level but was down 0.5 percentage point from the February-March all-time high. Participation was up over the year, however, with adult women accounting for all of the increase. (See table A-1.)

Table A. Major indicators of labor market activity, seasonally adjusted

Selected categories	Quarterly averages					Monthly data		
	1978				1979	1979		
	I	II	III	IV	I	Mar.	Apr.	May
HOUSEHOLD DATA	Thousands of persons							
Civilian labor force	99,263	100,127	100,753	101,524	102,475	102,714	102,111	102,247
Total employment	93,084	94,099	94,726	95,616	96,596	96,842	96,174	96,318
Unemployment	6,179	6,028	6,027	5,908	5,878	5,871	5,937	5,929
Not in labor force	58,741	58,478	58,482	58,398	58,095	58,105	58,815	58,935
Discouraged workers	914	851	853	760	724	N.A.	N.A.	N.A.
	Percent of labor force							
Unemployment rates:								
All workers	6.2	6.0	6.0	5.8	5.7	5.7	5.8	5.8
Adult men	4.5	4.2	4.1	4.0	4.0	4.0	4.0	3.9
Adult women	6.0	6.1	6.1	5.8	5.7	5.7	5.7	5.8
Teenagers	16.9	16.1	16.1	16.3	15.8	15.5	16.5	16.8
White	5.4	5.2	5.2	5.1	5.0	5.0	4.9	5.0
Black and other	12.4	12.1	11.7	11.5	11.4	11.2	11.8	11.6
Full-time workers	5.7	5.5	5.5	5.2	5.2	5.1	5.3	5.2
ESTABLISHMENT DATA	Thousands of jobs							
Nonfarm payroll employment	84,262	85,677	86,115	86,963	87,868	88,263	88,267p	88,438p
Goods-producing industries	24,766	25,376	25,478	25,857	26,241	26,412	26,369p	26,401p
Service-producing industries	59,495	60,302	60,637	61,106	61,628	61,851	61,898p	62,037p
	Hours of work							
Average weekly hours:								
Total private nonfarm	35.7	36.0	35.8	35.9	35.8	35.9	35.4p	35.6p
Manufacturing	40.2	40.6	40.4	40.6	40.7	40.8	39.2p	40.2p
Manufacturing overtime	3.6	3.6	3.5	3.7	3.8	3.8	2.8p	3.4p

p=preliminary. N.A.=not available.

Industry Payroll Employment

Nonfarm payroll employment, at 88.4 million, rose by 170,000 in May following no change in April. The small increase since March was in sharp contrast to the situation during the previous 6 months when employment grew by an average of 350,000 a month.

Among the major industry divisions, only three--construction, transportation and public utilities, and wholesale and retail trade--showed sizeable over-the-month job gains. A 65,000 increase in construction employment was mostly in highway and street construction, probably due to heightened road repair activity resulting from severe winter storms. Despite a May employment growth of 50,000 stemming from the settlement of the Teamsters strike, transportation and public utilities failed to recoup completely the losses experienced during the previous month, as United Airlines employees remained on strike during the reference period. Trade rose by 45,000 over the month, continuing the long-term uptrend in the industry.

Manufacturing employment in both the durable and nondurable goods industries edged down for the second month in a row, returning to February levels. In all, job gains took place in only 48 percent of the 172 industries comprising the BLS diffusion index. (See tables B-1 and B-6.)

Hours

The average workweek of production or nonsupervisory workers on private nonagricultural payrolls was 35.6 hours in May, up 0.2 hour from the depressed April level, which had been affected by holidays, strike activity, and, perhaps, by unusual weather conditions. The April decline of half an hour was not matched by the May increase, and, among the major goods-producing industry divisions, only the mining workweek was as high as its March level. Construction (down 0.9 hour from March), durable goods manufacturing (down 0.7 hour), and nondurable goods (down 0.5 hour) did not rebound completely from their severe April decline in hours. Overtime hours in manufacturing--3.4 in May--followed essentially the same pattern as the regular workweek during the March-May period.

Among the service-producing industries, only transportation and public utilities showed a workweek pattern similar to that of the goods-producing industries; hours were up 0.4 in May but still were 0.5 below their March level. Average hours in the other service-producing industries did not follow the same pattern over the past 2 months. (See table B-2.)

With the combination of small increases in both employment and weekly hours, the index of aggregate weekly hours of production or nonsupervisory workers rose 1.0 percent in May but remained about the same magnitude below March's record high of 124.7 (1967=100). The index was 3 percent above the year-ago level. (See table B-5.)

Hourly and Weekly Earnings

Average hourly earnings of production or nonsupervisory workers on private nonagricultural payrolls rose 0.7 percent from April and were 8.2 percent above the May 1978 level (seasonally adjusted). Average weekly earnings were up 1.2 percent over the month and have risen 7.3 percent from the year-earlier level.

Before adjustment for seasonality, average hourly earnings rose 5 cents to $6.07, 45 cents above May 1978. Average weekly earnings were $215.49, $4.19 above April and $14.86 higher than a year earlier. (See table B-3.)

The Hourly Earnings Index

The Hourly Earnings Index--earnings adjusted for overtime in manufacturing, seasonality, and the effects of changes in the proportion of workers in high-wage and low-wage industries--was 227.1 (1967=100) in May, 0.1 percent higher than in April. The index was 7.6 percent above May a year ago. During the 12-month period ended in April, the Hourly Earnings Index in dollars of constant purchasing power declined 2.5 percent. (See table B-4.)

Explanatory Note

This release presents and analyzes statistics from two major surveys. Data on labor force, total employment, and unemployment (A tables) are derived from the Current Population Survey—a sample survey of households which is conducted by the Bureau of the Census for the Bureau of Labor Statistics. Beginning in September 1975, the sample was enlarged by 9,000 households in order to provide greater reliability for smaller States and thus permit the publication of annual statistics for all 50 States and the District of Columbia. These supplementary households were added to the 47,000 national household sample in January 1978; thus the sample now consists of about 56,000 households selected to represent the U.S. civilian noninstitutional population 16 years and over.

Statistics on nonagricultural payroll employment, hours, and earnings (B tables) are collected by the Bureau of Labor Statistics, in cooperation with State agencies, from payroll records of a sample of approximately 165,000 establishments. Unless otherwise indicated, data for both statistical series relate to the week containing the 12th day of the specified month.

Comparability of household and payroll employment statistics

Employment data from the household and payroll surveys differ in several basic respects. The household survey provides information on the labor force activity of the entire civilian noninstitutional population, 16 years of age and over, without duplication. Each person is classified as either employed, unemployed, or not in the labor force. The household survey counts employed persons in both agriculture and nonagricultural industries and, in addition to wage and salary workers (including private household workers), counts the self-employed, unpaid family workers, and persons "with a job but not at work" and not paid for the period absent.

The payroll survey relates only to paid wage and salary employees (regardless of age) on the payrolls of nonagricultural establishments. Persons who worked at more than one job during the survey week or otherwise appear on more than one payroll are counted more than once in the establishment survey. Such persons are counted only once in the household survey and are classified in the job at which they worked the greatest number of hours.

Unemployment

To be classified in the household survey as unemployed an individual must: (1) Have been without a job during the survey week; (2) have made specific efforts to find employment sometime during the prior 4 weeks; and (3) be presently available for work. In addition, persons on layoff and those waiting to begin a new job (within 30 days), neither of whom must meet the jobseeking requirements, are also classified as unemployed. The unemployed total includes all persons who satisfactorily meet the above criteria, regardless of their eligibility for unemployment insurance benefits or any kind of public assistance. The unemployment rate represents the unemployed as a proportion of the civilian labor force (the employed and unemployed combined).

The Bureau regularly publishes a wide variety of labor market measures. See, for example, the demographic, occupational, and industry detail in tables A-2 and A-3 of this release and the comprehensive data package in Employment and Earnings each month. A special grouping of seven unemployment measures is set forth in table A-7. Identified by the symbols U-1 through U-7, these measures represent a range of possible definitions of unemployment and of the labor force—from the most restrictive (U-1) to the most comprehensive (U-7). The official rate of unemployment appears as U-5.

Seasonal adjustment

Nearly all economic phenomena are affected to some degree by seasonal variations. These are recurring, predictable events which are repeated more or less regularly each year—changes in weather, opening and closing of schools, major holidays, industry production schedules, etc. The cumulative effects of these events are often large. For example, on average over the year, they explain about 95 percent of the month-to-month variance in the unemployment figures. Since seasonal variations tend to be large relative to the underlying cyclical trends, it is necessary to use seasonally-adjusted data to interpret short-term economic developments. At the beginning of each year, seasonal adjustment factors for unemployment and other labor force series are calculated for use during the entire year, taking into account the prior year's experience.

All seasonally-adjusted civilian labor force and unemployment rate statistics, as well as the major employment and unemployment estimates, are computed by aggregating independently adjusted series. The official unemployment rate for all civilian workers is derived by dividing the estimate for total unem-

ployment (the sum of four seasonally-adjusted age-sex components) by the civilian labor force (the sum of 12 seasonally-adjusted age-sex components).

For establishment data, the seasonally-adjusted series for all employees, production workers, average weekly hours, and average hourly earnings are adjusted by aggregating the seasonally-adjusted data from the respective component series. These data are also revised annually, often in conjunction with benchmark (comprehensive counts of employment) adjustments. (The most recent revision of seasonally-adjusted data was based on data through May 1978.)

Sampling variability

Both the household and establishment survey statistics are subject to sampling error, which should be taken into account in evaluating the levels of a series as well as changes over time. Because the household survey is based upon a probability sample, the results may differ from the figures that would be obtained if it were possible to take a complete census using the same questionnaires and procedures. The standard error is the measure of sampling variability, that is, of the variation that occurs by chance because a sample rather than the entire population is surveyed. The chances are about 68 out of 100 that an estimate from the survey differs from a figure that would be obtained through a complete census by less than the standard error. Tables A through H in the "Explanatory Notes" of Employment and Earnings provide approximations of the standard errors for unemployment and other labor force categories. To obtain a 90-percent level of confidence, the confidence interval generally used by BLS, the errors should be multiplied by 1.6. The following examples provide an indication of the magnitude of sampling error: For a monthly change in total employment, the standard error is on the order of plus or minus 182,000. Similarly, the standard error on a change in total unemployment is approximately 115,000. The standard error on a change in the national unemployment rate is 0.12 percentage point.

Although the relatively large size of the monthly establishment survey assures a high degree of accuracy, the estimates derived from it also may differ from the figures obtained if a complete census using the same schedules and procedures were possible. However, since the estimating procedures utilize the previous month's level as the base in computing the current month's level of employment (link-relative technique), sampling and response errors may accumulate over several months. To remove this accumulated error, the employment estimates are adjusted to new benchmarks (comprehensive counts of employment), usually on an annual basis. In addition to taking account of sampling and response errors, the benchmark revision adjusts the estimates for changes in the industrial classification of individual establishments. Employment estimates are currently projected from March 1977 levels.

One measure of the reliability of the employment estimates for individual industries is the root-mean-square error (RMSE). The RMSE is the standard deviation adjusted for the bias in estimates. If the bias is small, the chances are about 68 out of 100 that an estimate from the sample would differ from its benchmark by less than the RMSE. For total nonagricultural employment, the RMSE is on the order of plus or minus 81,000. Measures of reliability (approximations of the RMSE) for establishment-survey data and actual amounts of revision due to benchmark adjustments are provided in tables J through O in the "Explanatory Notes" of Employment and Earnings.

Table A-1. Employment status of the noninstitutional population

[Numbers in thousands]

Employment status	Not seasonally adjusted			Seasonally adjusted					
	May 1978	Apr. 1979	May 1979	May 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979	May 1979
TOTAL									
Total noninstitutional population[1]	160,713	163,008	163,260	160,713	162,448	162,633	162,909	163,008	163,260
Armed Forces[2]	2,113	2,082	2,078	2,113	2,094	2,094	2,090	2,082	2,078
Civilian noninstitutional population[3]	158,601	160,926	161,182	158,601	160,353	160,539	160,819	160,926	161,182
Civilian labor force	99,309	101,226	101,473	100,109	102,483	102,527	102,714	102,111	102,247
Participation rate	62.6	62.9	63.0	63.1	63.7	63.9	63.9	63.5	63.4
Employed	93,851	95,675	96,220	93,953	96,300	96,647	96,842	96,174	96,318
Employment-population ratio[4]	58.4	58.7	58.9	58.5	59.3	59.4	59.4	59.0	59.0
Agriculture	3,389	3,074	3,309	3,243	3,232	3,311	3,343	3,186	3,188
Nonagricultural industries	90,483	92,601	92,911	90,710	93,068	93,335	93,499	92,987	93,130
Unemployed	5,457	5,561	5,253	6,156	5,883	5,881	5,871	5,937	5,929
Unemployment rate	5.5	5.5	5.2	6.1	5.8	5.7	5.7	5.8	5.8
Not in labor force	59,292	59,690	59,708	58,492	58,170	58,012	58,105	58,815	58,935
Men, 20 years and over									
Total noninstitutional population[1]	69,519	69,663	69,787	68,519	69,385	69,476	69,612	69,663	69,787
Civilian noninstitutional population[3]	66,865	67,997	68,123	66,865	67,726	67,816	67,939	67,997	68,123
Civilian labor force	53,225	53,958	54,105	53,383	54,334	54,485	54,494	54,243	54,261
Participation rate	79.6	79.4	79.4	79.9	80.2	80.3	80.1	79.8	79.7
Employed	51,149	51,773	52,175	51,119	52,133	52,331	52,264	52,056	52,157
Employment-population ratio[4]	76.6	76.3	76.8	76.6	75.1	75.3	75.1	76.7	76.7
Agriculture	2,393	2,237	2,342	2,324	2,293	2,324	2,355	2,271	2,274
Nonagricultural industries	48,756	49,536	49,833	48,795	49,841	50,007	49,909	49,785	49,883
Unemployed	2,076	2,185	1,930	2,264	2,200	2,154	2,180	2,187	2,105
Unemployment rate	3.9	4.0	3.6	4.2	4.0	4.0	4.0	4.0	3.9
Not in labor force	13,620	14,039	14,018	13,462	13,193	13,331	13,495	13,754	13,862
Women, 20 years and over									
Total noninstitutional population[1]	75,412	76,645	76,782	75,412	76,337	76,440	76,589	76,645	76,782
Civilian noninstitutional population[3]	75,310	76,532	76,670	75,310	76,228	76,332	76,476	76,532	76,670
Civilian labor force	37,025	38,425	38,402	37,208	38,185	38,429	38,464	38,345	38,540
Participation rate	49.2	50.2	50.1	49.4	50.1	50.3	50.5	50.1	50.3
Employed	34,960	36,403	36,413	34,886	36,019	36,252	36,340	36,165	36,323
Employment-population ratio[4]	46.4	47.5	47.4	46.3	47.2	47.4	47.6	47.2	47.3
Agriculture	590	534	597	536	586	608	613	580	583
Nonagricultural industries	34,370	35,869	35,816	34,350	35,433	35,644	35,827	35,584	35,780
Unemployed	2,065	2,021	1,989	2,322	2,166	2,177	2,201	2,180	2,237
Unemployment rate	5.6	5.3	5.2	6.2	5.7	5.7	5.7	5.7	5.8
Not in labor force	38,285	38,108	38,268	38,102	38,043	37,903	37,834	38,187	38,130
Both sexes, 16-19 years									
Total noninstitutional population[1]	16,782	16,700	16,692	16,782	16,725	16,717	16,709	16,700	16,692
Civilian noninstitutional population[3]	16,446	16,397	16,389	16,446	16,400	16,391	16,404	16,397	16,389
Civilian labor force	9,059	8,853	8,966	9,518	9,665	9,613	9,628	9,523	9,426
Participation rate	55.1	54.0	54.7	57.9	58.9	58.6	58.7	58.1	57.5
Employed	7,742	7,499	7,632	7,948	8,148	8,084	8,138	7,953	7,839
Employment-population ratio[4]	46.1	44.9	45.7	47.4	48.7	48.2	48.7	47.6	47.0
Agriculture	385	303	370	383	354	380	375	335	368
Nonagricultural industries	7,356	7,195	7,262	7,565	7,794	7,684	7,763	7,618	7,471
Unemployed	1,317	1,355	1,334	1,570	1,517	1,549	1,490	1,570	1,587
Unemployment rate	14.5	15.3	14.9	16.5	15.7	16.1	15.5	16.5	16.8
Not in labor force	7,387	7,543	7,423	6,928	6,735	6,778	6,776	6,874	6,963
White									
Total noninstitutional population[1]	141,026	142,773	142,978	141,026	142,351	142,493	142,720	142,773	142,978
Civilian noninstitutional population[3]	139,317	141,123	141,331	139,317	140,683	140,825	141,063	141,123	141,331
Civilian labor force	87,567	89,195	89,456	88,168	90,093	90,395	90,415	89,842	90,018
Participation rate	62.9	63.2	63.3	63.3	64.0	64.2	64.1	63.7	63.7
Employed	83,446	84,997	85,482	83,495	85,543	85,941	85,938	85,479	85,515
Employment-population ratio[4]	59.2	59.5	59.8	59.2	60.1	60.3	60.2	59.9	59.8
Unemployed	4,120	4,198	3,974	4,669	4,550	4,453	4,478	4,464	4,503
Unemployment rate	4.7	4.7	4.4	5.3	5.1	4.9	5.0	4.9	5.0
Not in labor force	51,750	51,928	51,875	51,149	50,590	50,430	50,648	51,200	51,313
Black and other									
Total noninstitutional population[1]	19,687	20,234	20,282	19,687	20,097	20,140	20,189	20,234	20,282
Civilian noninstitutional population[3]	19,284	19,802	19,850	19,284	19,670	19,714	19,755	19,802	19,850
Civilian labor force	11,742	12,041	12,017	11,906	12,077	12,228	12,251	12,175	12,176
Participation rate	60.9	60.8	60.5	61.7	61.4	62.0	62.0	61.5	61.3
Employed	10,405	10,678	10,738	10,637	10,725	10,775	10,878	10,738	10,767
Employment-population ratio[4]	52.9	52.8	52.9	53.0	53.4	53.5	53.9	53.0	53.1
Unemployed	1,337	1,363	1,279	1,269	1,352	1,452	1,374	1,442	1,409
Unemployment rate	11.4	11.3	10.6	12.3	11.2	11.9	11.2	11.8	11.6
Not in labor force	7,541	7,761	7,833	7,378	7,593	7,486	7,504	7,627	7,674

[1] The population and Armed Forces figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and seasonally adjusted columns.

[2] Civilian employment as a percent of the total noninstitutional population (including Armed Forces).

Table A-2. Major unemployment indicators, seasonally adjusted

Selected categories	Number of unemployed persons (in thousands)		Unemployment rates					
	May 1978	May 1979	May 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979	May 1979
CHARACTERISTICS								
Total, 16 years and over	6,156	5,929	6.1	5.8	5.7	5.7	5.8	5.8
Men, 20 years and over	2,269	2,105	4.2	4.0	4.0	4.0	4.0	3.9
Women, 20 years and over	2,322	2,237	6.2	5.7	5.7	5.7	5.7	5.8
Both sexes, 16-19 years	1,570	1,587	16.5	15.7	16.1	15.5	16.5	16.8
White, total	4,669	4,503	5.3	5.1	4.9	5.0	4.9	5.0
Men, 20 years and over	1,753	1,609	3.7	3.6	3.6	3.6	3.6	3.3
Women, 20 years and over	1,752	1,703	5.5	5.0	5.0	5.0	4.9	5.1
Both sexes, 16-19 years	1,164	1,191	13.8	13.7	13.6	13.6	13.9	14.3
Black and other, total	1,469	1,409	12.3	11.2	11.9	11.2	11.8	11.6
Men, 20 years and over	505	491	8.8	7.8	8.6	8.8	8.6	8.4
Women, 20 years and over	562	526	10.9	10.6	10.6	9.8	10.8	9.9
Both sexes, 16-19 years	402	391	38.2	32.7	35.5	31.5	34.5	36.9
Married men, spouse present	1,144	995	2.9	2.6	2.6	2.6	2.7	2.5
Married women, spouse present	1,386	1,233	6.0	5.3	5.1	5.1	5.2	5.2
Women who head families	451	439	9.3	7.8	8.3	8.3	8.4	8.9
Full-time workers	4,782	4,508	5.6	5.2	5.2	5.1	5.3	5.2
Part-time workers	1,388	1,437	9.2	9.1	8.6	9.2	8.8	9.6
Unemployed 15 weeks and over[1]	1,404	1,213	1.4	1.2	1.2	1.3	1.2	1.2
Labor force time lost[2]	--	--	6.6	6.2	6.2	6.1	6.5	6.3
OCCUPATION[3]								
White-collar workers	1,783	1,636	3.7	3.3	3.4	3.4	3.3	3.2
Professional and technical	363	310	2.5	2.5	2.3	2.1	2.2	2.0
Managers and administrators, except farm	211	235	2.1	2.0	1.9	2.2	2.3	2.2
Sales workers	276	255	4.5	3.8	4.3	4.1	4.0	4.0
Clerical workers	933	836	5.3	4.6	4.7	4.9	4.5	4.6
Blue-collar workers	2,243	2,296	6.7	6.4	6.4	6.6	6.9	6.7
Craft and kindred workers	568	536	4.4	4.5	4.7	4.6	4.2	4.0
Operatives, except transport	989	962	8.4	7.6	7.6	7.7	8.6	8.3
Transport equipment operatives	210	210	5.6	4.9	5.0	5.2	6.0	5.8
Nonfarm laborers	476	588	8.8	9.4	9.3	10.3	10.5	11.1
Service workers	1,057	989	7.6	7.9	7.1	7.2	7.4	7.2
Farm workers	101	94	3.6	2.8	3.6	3.2	3.4	3.5
INDUSTRY[4]								
Nonagricultural private wage and salary workers[5]	4,355	4,232	6.0	5.7	5.6	5.5	5.7	5.7
Construction	467	486	9.6	10.6	11.5	10.2	10.3	9.6
Manufacturing	1,251	1,223	5.7	5.0	4.8	5.2	5.4	5.4
Durable goods	671	599	5.1	4.4	4.1	4.3	4.6	4.4
Nondurable goods	580	624	6.5	5.9	5.8	6.4	6.5	7.0
Transportation and public utilities	208	196	3.9	3.5	3.0	4.0	2.9	3.5
Wholesale and retail trade	1,263	1,194	6.9	6.5	6.6	6.2	6.6	6.6
Finance and service industries	1,124	1,091	5.2	5.1	4.8	4.7	4.8	5.0
Government workers	642	570	4.0	4.0	3.7	4.1	3.6	3.5
Agricultural wage and salary workers	123	147	7.9	7.2	8.9	7.7	8.6	9.3

[1] Unemployment rate calculated as a percent of civilian labor force.

[2] Aggregate hours lost by the unemployed and persons on part time for economic reasons as a percent of potentially available labor force hours.

[3] Unemployment by occupation includes all experienced unemployed persons, whereas that by industry covers only unemployed wage and salary workers.

[4] Includes mining, not shown separately.

Table A-3. Selected employment indicators

[In thousands]

Selected categories	Not seasonally adjusted		Seasonally adjusted					
	May 1978	May 1979	May 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979	May 1979
CHARACTERISTICS								
Total employed, 16 years and over	93,851	96,220	93,953	96,300	96,647	96,842	96,178	96,318
Men	55,312	56,280	55,372	56,449	56,559	56,575	56,267	56,352
Women	38,539	39,941	38,581	39,851	40,098	40,283	39,907	39,966
Married men, spouse present	38,665	39,066	38,596	39,202	39,374	39,291	38,917	38,988
Married women, spouse present	21,698	22,490	21,698	22,410	22,632	22,700	22,355	22,490
OCCUPATION								
White-collar workers	46,726	48,935	46,885	48,275	49,001	49,133	49,160	49,104
Professional and technical	14,356	15,220	14,356	14,743	15,034	15,083	15,226	15,220
Managers and administrators, except farm	9,913	10,312	9,972	10,322	10,414	10,407	10,409	10,374
Sales workers	5,887	6,073	5,903	6,055	6,161	6,067	6,075	6,091
Clerical workers	16,569	17,331	16,654	17,156	17,412	17,577	17,446	17,418
Blue-collar workers	31,513	31,859	31,477	32,491	32,321	32,085	31,582	31,826
Craft and kindred workers	12,206	12,764	12,233	12,842	12,932	12,808	12,697	12,790
Operatives, except transport	10,781	10,683	10,798	11,047	10,953	11,060	10,651	10,669
Transport equipment operatives	3,530	3,689	3,508	3,678	3,618	3,565	3,550	3,667
Nonfarm laborers	4,995	4,762	4,938	4,924	4,829	4,652	4,684	4,706
Service workers	12,884	12,728	12,838	12,777	12,770	12,856	12,909	12,754
Farm workers	2,809	2,698	2,708	2,759	2,742	2,803	2,624	2,600
MAJOR INDUSTRY AND CLASS OF WORKER								
Agriculture:								
Wage and salary workers	1,441	1,446	1,438	1,365	1,429	1,419	1,362	1,439
Self-employed workers	1,618	1,524	1,577	1,567	1,550	1,595	1,531	1,490
Unpaid family workers	318	339	250	293	348	324	282	270
Nonagricultural industries:								
Wage and salary workers	83,613	85,509	84,016	86,169	86,346	86,592	86,195	86,129
Government	15,325	15,729	15,238	15,217	15,293	15,224	15,356	15,635
Private industries	68,087	69,780	68,778	70,952	71,053	71,368	70,839	70,494
Private households	1,386	1,357	1,410	1,245	1,334	1,255	1,160	1,177
Other industries	66,701	68,423	67,368	69,707	69,719	70,112	69,679	69,317
Self-employed workers	6,503	6,870	6,274	6,529	6,632	6,585	6,466	6,625
Unpaid family workers	567	532	497	478	456	443	471	466
PERSONS AT WORK [1]								
Nonagricultural industries	86,911	89,246	85,401	87,490	87,592	87,955	86,345	87,727
Full-time schedules	70,648	73,056	70,090	72,209	72,250	72,623	71,558	72,476
Part time for economic reasons	3,043	3,100	3,247	3,159	3,147	3,179	3,312	3,307
Usually work full time	1,182	1,216	1,211	1,208	1,205	1,235	1,265	1,246
Usually work part time	1,861	1,884	2,036	1,951	1,942	1,944	2,048	2,061
Part time for noneconomic reasons	13,220	13,090	12,064	12,122	12,195	12,154	11,479	11,943

[1] Excludes persons "with a job but not at work" during the survey period for such reasons as vacation, illness, or industrial dispute.

Table A-4. Duration of unemployment

[Numbers in thousands]

Weeks of unemployment	Not seasonally adjusted		Seasonally adjusted					
	May 1978	May 1979	May 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979	May 1979
DURATION								
Less than 5 weeks	2,563	2,498	2,862	2,713	2,783	2,751	2,939	2,787
5 to 14 weeks	1,385	1,455	1,842	1,877	1,870	1,857	1,878	1,935
15 weeks and over	1,510	1,304	1,404	1,251	1,240	1,305	1,235	1,213
15 to 26 weeks	792	768	723	728	712	729	692	705
27 weeks and over	718	536	681	523	548	576	543	508
Average (mean) duration, in weeks	13.3	12.1	12.2	11.2	11.3	11.7	11.0	11.1
Median duration, in weeks	5.8	5.7	5.3	5.9	6.3	5.8	5.2	5.2
PERCENT DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Less than 5 weeks	47.0	47.5	46.9	46.4	46.7	46.5	48.6	47.0
5 to 14 weeks	25.4	27.7	30.2	32.1	31.8	31.4	31.0	32.6
15 weeks and over	27.7	24.8	23.0	21.4	21.6	22.1	20.4	20.4
15 to 26 weeks	14.5	14.6	11.8	12.5	12.1	12.3	11.4	11.9
27 weeks and over	13.2	10.2	11.1	9.0	9.3	9.7	9.0	8.6

HOUSEHOLD DATA

Table A-5. Reasons for unemployment

(Numbers in thousands)

Reasons	Not seasonally adjusted		Seasonally adjusted					
	May 1978	May 1979	May 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979	May 1979
NUMBER OF UNEMPLOYED								
Lost last job	2,322	2,097	2,619	2,856	2,881	2,880	2,521	2,361
On layoff	565	572	701	753	792	789	846	770
Other job losers	1,757	1,525	1,913	1,701	1,689	1,652	1,675	1,652
Left last job	680	782	828	927	829	863	847	951
Reentered labor force	1,643	1,614	1,793	1,692	1,756	1,788	1,790	1,762
Seeking first job	812	761	892	823	874	822	811	881
PERCENT OF DISTRIBUTION								
Total unemployed	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Job losers	42.6	39.9	42.7	41.6	41.8	41.3	42.2	39.9
On layoff	10.4	10.9	11.4	12.8	13.3	13.3	14.2	12.0
Other job losers	32.2	29.0	31.2	28.9	28.4	27.9	28.1	27.9
Job leavers	12.5	14.9	13.5	15.7	14.0	14.6	14.2	16.1
Reentrants	30.1	30.7	29.3	28.7	29.6	30.2	30.0	29.8
New entrants	14.9	14.5	14.6	14.0	14.7	13.9	13.6	14.2
UNEMPLOYED AS A PERCENT OF THE CIVILIAN LABOR FORCE								
Job losers	2.6	2.1	2.6	2.6	2.6	2.6	2.5	2.3
Job leavers	.7	.8	.8	.9	.8	.8	.8	.9
Reentrants	1.7	1.6	1.8	1.7	1.7	1.7	1.8	1.7
New entrants	.8	.7	.9	.8	.9	.8	.8	.8

Table A-6. Unemployment by sex and age, seasonally adjusted

Sex and age	Number of unemployed persons (In thousands)		Unemployment rates					
	May 1978	May 1979	May 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979	May 1979
Total, 16 years and over	6,156	5,929	6.1	5.8	5.7	5.7	5.8	5.8
16 to 19 years	1,570	1,587	16.5	15.7	16.1	15.5	16.5	16.8
16 to 17 years	777	753	19.1	18.4	18.6	18.9	19.1	19.2
18 to 19 years	796	835	14.6	13.6	14.6	13.1	14.3	15.2
20 to 24 years	1,351	1,348	9.1	8.6	8.6	8.8	8.5	8.9
25 years and over	3,215	2,978	4.2	3.9	3.9	3.9	4.0	3.8
25 to 54 years	2,740	2,509	4.5	4.2	4.1	4.1	4.2	4.0
55 years and over	474	471	3.3	2.9	3.0	3.1	3.1	3.2
Men, 16 years and over	3,032	2,910	5.2	5.1	5.0	5.0	5.1	4.9
16 to 19 years	768	805	15.3	16.1	16.5	16.0	16.2	16.1
16 to 17 years	401	408	18.4	19.1	19.2	19.9	18.6	19.0
18 to 19 years	370	399	13.1	13.5	14.7	13.2	14.2	14.1
20 to 24 years	640	653	8.0	8.4	8.2	8.4	7.8	8.0
25 years and over	1,575	1,406	3.5	3.2	3.2	3.2	3.3	3.1
25 to 54 years	1,286	1,156	3.5	3.3	3.2	3.3	3.4	3.1
55 years and over	296	259	3.3	2.8	2.8	2.8	3.0	2.9
Women, 16 years and over	3,124	3,019	7.5	6.7	6.7	6.7	6.9	7.0
16 to 19 years	802	782	17.8	15.3	15.7	14.8	16.8	17.7
16 to 17 years	376	345	20.0	17.5	17.4	17.8	20.2	19.3
18 to 19 years	426	436	16.2	13.6	14.4	13.0	14.4	16.4
20 to 24 years	711	695	10.5	8.9	9.1	9.4	9.4	9.9
25 years and over	1,640	1,572	5.4	5.0	4.9	4.8	4.9	5.0
25 to 54 years	1,454	1,352	5.9	5.4	5.3	5.2	5.2	5.2
55 years and over	178	211	3.2	3.1	3.3	3.6	3.1	3.7

Table A-7. Range of unemployment measures based on varying definitions of unemployment and the labor force, seasonally adjusted

(Percent)

Measures	Quarterly averages					Monthly data		
	1978				1979	1979		
	I	II	III	IV	I	Mar.	Apr.	May
U-1—Persons unemployed 15 weeks or longer as a percent of the civilian labor force	1.6	1.4	1.3	1.2	1.2	1.3	1.2	1.2
U-2—Job losers as a percent of the civilian labor force	2.6	2.5	2.4	2.0	2.0	2.0	2.5	2.3
U-3—Unemployed persons 25 years and over as a percent of the civilian labor force 25 years and over	4.1	4.1	4.1	3.9	3.9	3.9	4.0	3.8
U-4—Unemployed full-time jobseekers as a percent of the full-time labor force	5.7	5.5	5.5	5.2	5.2	5.1	5.3	5.2
U-5—Total unemployed as a percent of the civilian labor force (official measure)	6.2	6.0	6.0	5.8	5.7	5.7	5.8	5.8
U-6—Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons as a percent of the civilian labor force less ½ of the part-time labor force	7.7	7.6	7.5	7.2	7.2	7.1	7.3	7.3
U-7—Total full-time jobseekers plus ½ part-time jobseekers plus ½ total on part time for economic reasons plus discouraged workers as a percent of the civilian labor force plus discouraged workers less ½ of the part-time labor force	9.0	8.4	8.4	8.0	7.9	N.A.	N.A.	N.A.

N.A. = not available.

Table A-8. Employment status of the noninstitutional population by race and Hispanic origin, not seasonally adjusted

(Number in thousands)

Employment status	Total		White		Black[1]		Hispanic origin[2]	
	May 1978	May 1979	May 1978	May 1979	May 1978	May 1979	May 1978	May 1979
TOTAL								
Civilian noninstitutional population	156,601	161,182	139,317	141,331	16,590	16,981	7,718	8,011
Civilian labor force	99,197	101,473	87,567	89,456	10,039	10,197	4,775	4,977
Percent of population	62.0	63.0	62.9	63.3	60.5	60.0	61.9	62.1
Employment	93,351	96,220	83,446	85,862	8,829	9,019	4,384	4,605
Agriculture	3,369	3,309	3,065	3,036	225	212	262	222
Nonagricultural industries	89,982	92,911	80,382	82,826	8,604	8,807	4,086	4,383
Unemployment	5,847	5,253	4,120	3,974	1,210	1,177	427	372
Unemployment rate	5.5	5.2	4.7	4.4	12.1	11.5	8.9	7.5
Not in labor force	57,492	59,708	51,750	51,875	6,550	6,785	2,944	3,034

[1] Data relate to black workers only. According to the 1970 Census, they comprised about 89 percent of the "black and other" population group.

[2] Data on persons of Hispanic origin are tabulated separately, without regard to race, which means that they are also included in the data for white and black workers. At the time of the 1970 Census, approximately 96 percent of their population was white.

Table A-9. Employment status of male Vietnam-era veterans and nonveterans by age, not seasonally adjusted

(Numbers in thousands)

Veteran status and age	Civilian noninstitutional population		Civilian labor force							
			Total		Employed		Unemployed			
							Number		Percent of labor force	
	May 1978	May 1979	May 1978	May 1979	May 1978	May 1979	May 1978	May 1979	May 1978	May 1979
VETERANS[1]										
Total, 20 years and over	8,311	8,516	7,811	8,085	7,518	7,748	293	337	3.8	4.2
20 to 24 years	784	579	685	517	642	460	43	57	6.3	11.0
25 to 39 years	6,829	7,106	6,522	6,867	6,292	6,604	230	263	3.5	3.8
25 to 29 years	2,417	2,003	2,276	1,907	2,155	1,807	121	100	5.3	5.2
30 to 34 years	3,327	3,591	3,191	3,491	3,123	3,366	75	125	2.3	3.6
35 to 39 years	1,061	1,512	1,048	1,469	1,014	1,431	34	38	3.2	2.6
40 years and over	702	831	604	701	584	684	20	17	3.3	2.4
NONVETERANS[2]										
Total, 25 to 39 years	13,565	14,463	12,944	13,721	12,443	13,309	501	412	3.9	3.0
25 to 29 years	6,915	6,547	5,872	6,226	5,620	6,016	252	210	4.4	3.4
30 to 34 years	3,951	4,148	3,858	3,966	3,714	3,847	140	119	3.6	3.0
35 to 39 years	3,559	3,718	3,418	3,529	3,309	3,446	109	83	3.2	2.4

[1] Vietnam-era veterans are those who served between August 5, 1964 and May 7, 1975.

[2] Nonveterans are males who have never served in the Armed Forces. Published data are limited, to those 25-39 years of age, the group that most closely corresponds to the bulk of the Vietnam-era veteran population.

NOTE: Seasonally-adjusted data are no longer being provided because the changing age composition of the Vietnam-era veterans' population distorts the ability to identify seasonality in the series.

Table A-10. Employment status of the noninstitutional population for ten large States

[Numbers in thousands]

State and employment status	Not seasonally adjusted [2]			Seasonally adjusted					
	May 1978	Apr. 1979	May 1979	May 1978	Jan. 1979	Feb. 1979	Mar. 1979	Apr. 1979	May 1979
California									
Civilian noninstitutional population [1]	16,290	16,593	16,648	16,290	16,536	16,561	16,623	16,593	16,648
Civilian labor force	10,616	10,662	10,732	10,645	10,824	10,863	10,783	10,755	10,761
Employed	9,872	10,006	10,131	9,834	10,137	10,149	10,084	10,071	10,093
Unemployed	744	656	601	811	687	714	699	684	668
Unemployment rate	7.0	6.2	5.6	7.6	6.3	6.6	6.5	6.4	6.2
Florida									
Civilian noninstitutional population [1]	6,489	6,671	6,689	6,489	6,620	6,636	6,654	6,671	6,689
Civilian labor force	3,625	3,832	3,789	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,401	3,629	3,596	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	223	202	193	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	6.2	5.3	5.1	(2)	(2)	(2)	(2)	(2)	(2)
Illinois									
Civilian noninstitutional population [1]	8,199	8,265	8,271	8,199	8,247	8,252	8,259	8,265	8,271
Civilian labor force	5,266	5,219	5,182	5,319	5,317	5,260	5,273	5,269	5,235
Employed	4,947	4,946	4,937	4,954	5,051	4,996	4,973	4,962	4,944
Unemployed	319	273	245	365	266	264	300	307	291
Unemployment rate	6.1	5.2	4.7	6.9	5.0	5.0	5.7	5.8	5.6
Massachusetts									
Civilian noninstitutional population [1]	4,322	4,365	4,369	4,322	4,354	4,357	4,361	4,365	4,369
Civilian labor force	2,800	2,883	2,856	(2)	(2)	(2)	(2)	(2)	(2)
Employed	2,649	2,731	2,713	2,660	2,727	2,775	2,754	2,763	2,724
Unemployed	152	152	143	(2)	(2)	(2)	(2)	(2)	(2)
Unemployment rate	5.4	5.3	5.0	(2)	(2)	(2)	(2)	(2)	(2)
Michigan									
Civilian noninstitutional population [1]	6,634	6,716	6,723	6,634	6,694	6,701	6,708	6,716	6,723
Civilian labor force	4,166	4,254	4,327	(2)	(2)	(2)	(2)	(2)	(2)
Employed	3,893	3,888	4,016	(2)	(2)	(2)	(2)	(2)	(2)
Unemployed	273	366	311	299	329	305	293	365	337
Unemployment rate	6.6	8.6	7.2	(2)	(2)	(2)	(2)	(2)	(2)
New Jersey									
Civilian noninstitutional population [1]	5,449	5,502	5,506	5,449	5,488	5,492	5,497	5,502	5,506
Civilian labor force	3,338	3,425	3,465	3,354	3,369	3,583	3,529	3,477	3,482
Employed	3,094	3,231	3,218	3,090	3,327	3,312	3,294	3,271	3,215
Unemployed	244	194	247	264	242	271	235	206	267
Unemployment rate	7.3	5.7	7.1	7.9	6.8	7.6	6.7	5.9	7.7
New York									
Civilian noninstitutional population [1]	13,258	13,287	13,289	13,258	13,276	13,278	13,282	13,287	13,289
Civilian labor force	7,723	7,943	7,854	7,765	8,094	8,030	8,022	7,936	7,896
Employed	7,145	7,410	7,394	7,145	7,531	7,498	7,435	7,380	7,394
Unemployed	578	533	460	620	563	532	587	556	502
Unemployment rate	7.5	6.7	5.9	8.0	7.0	6.6	7.3	7.0	6.4
Ohio									
Civilian noninstitutional population [1]	7,857	7,931	7,936	7,857	7,912	7,917	7,924	7,931	7,936
Civilian labor force	4,868	4,963	4,993	4,899	5,065	5,056	5,063	5,026	5,025
Employed	4,621	4,687	4,747	4,613	4,760	4,773	4,811	4,746	4,740
Unemployed	247	275	246	286	305	283	252	280	285
Unemployment rate	5.1	5.5	4.9	5.8	6.0	5.6	5.0	5.6	5.7
Pennsylvania									
Civilian noninstitutional population [1]	8,842	8,896	8,902	8,842	8,881	8,885	8,891	8,896	8,902
Civilian labor force	5,139	5,186	5,217	5,201	5,333	5,275	5,295	5,219	5,278
Employed	4,841	4,866	4,922	4,849	4,994	4,947	4,932	4,889	4,930
Unemployed	298	320	294	352	339	328	363	330	348
Unemployment rate	5.8	6.2	5.6	6.8	6.4	6.2	6.9	6.3	6.6
Texas									
Civilian noninstitutional population [1]	9,163	9,343	9,380	9,163	9,309	9,325	9,367	9,343	9,380
Civilian labor force	5,927	6,083	6,026	5,982	6,150	6,220	6,146	6,136	6,081
Employed	5,680	5,845	5,771	5,707	5,913	5,963	5,908	5,855	5,798
Unemployed	247	239	255	275	237	257	238	281	283
Unemployment rate	4.2	3.9	4.2	4.6	3.9	4.1	3.9	4.6	4.7

[1] The population figures are not adjusted for seasonal variations; therefore, identical numbers appear in the unadjusted and the seasonally adjusted columns.

[2] These are the official Bureau of Labor Statistics' estimates used in the administration of Federal fund allocation programs.

[3] Seasonally-adjusted data are not presented for this series, because the variations that are due to seasonal influences cannot be separated with sufficient precision from those which stem from the trend-cycle and irregular components of the original time series.

Table B-1. Employees on nonagricultural payrolls by industry

(In thousands)

Industry	Not seasonally adjusted				Seasonally adjusted					
	MAY 1978	MAR. 1979	APR. 1979 p	MAY 1979 p	MAY 1978	JAN. 1979	FEB. 1979	MAR. 1979	APR. 1979 p	MAY 1979 p
TOTAL	85,796	87,346	87,957	88,673	85,818	87,524	87,818	88,263	88,267	88,438
GOODS-PRODUCING	25,262	25,788	26,013	26,322	25,341	26,111	26,199	26,412	26,369	26,401
MINING	870	906	915	921	869	905	919	922	924	920
CONSTRUCTION	4,183	4,159	4,354	4,593	4,175	4,381	4,385	4,526	4,517	4,584
MANUFACTURING	20,209	20,723	20,744	20,808	20,297	20,825	20,895	20,964	20,928	20,897
Production workers	14,534	14,872	14,887	14,952	14,603	14,996	15,047	15,088	15,039	15,022
DURABLE GOODS	12,083	12,565	12,660	12,637	12,093	12,562	12,647	12,699	12,671	12,649
Production workers	8,684	9,011	9,042	9,075	8,685	9,034	9,100	9,131	9,096	9,077
Lumber and wood products	749.1	743.7	748.3	755.7	745	770	773	768	760	752
Furniture and fixtures	485.4	487.0	482.4	480.9	489	494	493	491	487	485
Stone, clay, and glass products	701.6	692.9	702.9	712.7	700	706	709	714	712	711
Primary metal industries	1,200.6	1,243.5	1,252.5	1,246.9	1,197	1,241	1,251	1,254	1,254	1,243
Fabricated metal products	1,645.7	1,696.6	1,690.3	1,702.9	1,652	1,706	1,715	1,712	1,711	1,710
Machinery, except electrical	2,303.9	2,486.4	2,496.0	2,496.3	2,311	2,447	2,465	2,481	2,496	2,502
Electric and electronic equipment	1,942.5	2,042.9	2,048.5	2,055.3	1,952	2,027	2,042	2,064	2,065	2,066
Transportation equipment	1,953.5	2,038.3	2,032.9	2,051.1	1,942	2,031	2,055	2,067	2,037	2,039
Instruments and related products	646.7	686.2	689.9	688.9	649	681	686	690	693	691
Miscellaneous manufacturing	454.4	447.9	447.5	448.2	456	450	458	458	456	458
NONDURABLE GOODS	8,126	8,158	8,144	8,171	8,204	8,263	8,248	8,265	8,257	8,248
Production workers	5,850	5,861	5,845	5,877	5,918	5,962	5,947	5,957	5,943	5,945
Food and kindred products	1,644.6	1,642.5	1,633.4	1,645.2	1,701	1,716	1,708	1,716	1,709	1,701
Tobacco manufacturers	66.6	68.1	66.4	66.0	75	72	71	73	73	74
Textile mill products	912.1	905.3	900.7	906.6	913	912	911	909	903	906
Apparel and other textile products	1,320.2	1,304.7	1,301.7	1,290.8	1,326	1,318	1,304	1,301	1,304	1,297
Paper and allied products	705.8	716.2	712.5	712.5	709	708	712	717	719	716
Printing and publishing	1,177.3	1,215.3	1,216.7	1,218.5	1,180	1,209	1,214	1,219	1,219	1,221
Chemicals and allied products	1,087.4	1,094.0	1,096.7	1,101.0	1,093	1,099	1,098	1,098	1,101	1,107
Petroleum and coal products	207.8	208.3	210.2	212.7	207	211	212	214	214	218
Rubber and misc. plastics products	741.8	776.1	767.5	767.1	767	773	777	778	776	773
Leather and leather products	255.6	230.1	238.2	243.1	253	245	241	240	237	241
SERVICE-PRODUCING	60,534	61,558	61,944	62,351	60,277	61,413	61,619	61,851	61,898	62,037
TRANSPORTATION AND PUBLIC UTILITIES	4,842	4,965	4,902	4,998	4,847	4,974	5,001	5,029	4,942	4,965
WHOLESALE AND RETAIL TRADE	19,267	19,548	19,817	19,995	19,335	19,817	19,883	19,965	19,966	20,010
WHOLESALE TRADE	4,870	5,015	5,037	5,068	4,885	5,020	5,035	5,055	5,067	5,083
RETAIL TRADE	14,397	14,533	14,780	14,927	14,450	14,797	14,848	14,890	14,899	14,927
FINANCE, INSURANCE, AND REAL ESTATE	4,642	4,810	4,839	4,868	4,637	4,809	4,829	4,839	4,854	4,863
SERVICES	15,975	16,436	16,578	16,691	15,896	16,352	16,438	16,535	16,578	16,668
GOVERNMENT	15,808	15,799	15,808	15,807	15,562	15,461	15,468	15,507	15,558	15,561
FEDERAL	2,756	2,740	2,758	2,761	2,753	2,755	2,755	2,784	2,756	2,758
STATE AND LOCAL	13,052	13,059	13,050	13,046	12,809	12,706	12,713	12,723	12,802	12,803

p-preliminary.

ESTABLISHMENT DATA

Table B-2. Average weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry

Industry	Not seasonally adjusted				Seasonally adjusted					
	MAY 1978	MAR. 1979	APR. 1979[p]	MAY 1979[p]	MAY 1978	JAN. 1979	FEB. 1979	MAR. 1979	APR. 1979[p]	MAY 1979[p]
TOTAL PRIVATE	35.7	35.7	35.1	35.8	35.9	35.7	35.7	35.9	35.4	35.6
MINING	43.4	42.9	42.7	43.4	43.4	43.4	43.0	43.2	43.1	43.4
CONSTRUCTION	36.7	37.0	35.5	36.8	36.6	35.9	36.4	37.6	35.8	36.7
MANUFACTURING	40.4	40.6	38.9	40.2	40.4	40.7	40.7	40.8	39.2	40.2
Overtime hours	3.4	3.6	2.6	3.4	3.5	3.8	3.8	3.8	2.8	3.6
DURABLE GOODS	41.0	41.4	39.3	40.9	41.0	41.5	41.5	41.6	39.5	40.9
Overtime hours	3.6	3.9	2.6	3.6	3.7	4.2	4.2	4.1	2.8	3.6
Lumber and wood products	39.9	39.7	39.1	40.0	39.5	40.0	39.5	40.1	39.2	39.6
Furniture and fixtures	39.2	39.0	37.5	38.1	39.4	39.2	38.8	39.4	38.2	38.3
Stone, clay, and glass products	41.8	41.8	41.8	41.9	41.6	41.4	41.5	42.3	41.2	41.9
Primary metal industries	41.7	41.9	41.6	42.4	41.7	42.6	42.3	41.9	41.6	42.4
Fabricated metal products	41.1	41.3	38.7	40.2	41.1	41.2	41.4	41.5	39.0	40.2
Machinery, except electrical	41.8	42.6	40.2	41.8	42.1	42.2	42.6	42.6	40.4	42.1
Electric and electronic equipment	40.1	40.7	38.7	40.0	40.2	40.7	40.9	40.9	38.9	40.1
Transportation equipment	42.1	42.2	38.0	41.7	41.8	43.0	42.7	42.4	38.1	41.4
Instruments and related products	40.8	41.3	39.9	40.8	40.8	41.1	41.1	41.4	40.2	40.8
Miscellaneous manufacturing	38.8	39.2	37.6	38.4	38.8	39.1	39.0	39.2	37.7	38.4
NONDURABLE GOODS	39.3	39.4	38.3	39.0	39.5	39.6	39.4	39.6	38.7	39.1
Overtime hours	3.1	3.1	2.5	2.9	3.2	3.2	3.2	3.3	2.7	3.0
Food and kindred products	39.6	39.6	39.1	39.4	39.8	40.1	39.7	40.1	39.8	39.6
Tobacco manufacturers	38.6	38.1	37.6	38.1	38.7	36.7	36.7	38.5	37.9	38.1
Textile mill products	40.6	40.4	38.6	39.9	40.5	40.9	40.6	40.6	39.0	39.8
Apparel and other textile products	35.8	35.4	33.9	35.0	35.9	35.3	35.5	35.5	34.3	35.1
Paper and allied products	42.8	42.6	41.9	42.7	42.9	42.9	42.9	42.9	42.4	42.8
Printing and publishing	37.2	37.7	36.5	37.1	37.3	37.7	37.7	37.8	36.9	37.2
Chemicals and allied products	41.8	41.9	42.6	41.9	41.9	42.0	41.9	42.0	41.9	42.0
Petroleum and coal products	42.9	43.8	44.3	43.3	42.9	43.4	43.6	44.2	44.5	43.3
Rubber and misc. plastics products	40.7	41.4	39.6	40.6	41.1	41.5	41.5	41.5	39.8	41.0
Leather and leather products	37.7	35.9	35.1	35.9	37.6	37.0	36.3	36.2	35.6	35.7
TRANSPORTATION AND PUBLIC UTILITIES	39.9	39.9	39.1	39.5	40.2	40.2	40.0	40.2	39.3	39.7
WHOLESALE AND RETAIL TRADE	32.7	32.6	32.5	32.4	32.9	32.6	32.8	32.7	32.8	32.6
WHOLESALE TRADE	38.7	38.9	38.6	38.8	38.7	38.7	38.7	39.1	38.8	38.8
RETAIL TRADE	30.9	30.3	30.6	30.5	31.1	30.5	30.6	30.7	30.9	30.7
FINANCE, INSURANCE, AND REAL ESTATE	36.3	36.3	36.4	36.2	36.3	36.3	36.3	36.3	36.5	36.2
SERVICES	32.6	32.6	32.5	32.4	32.9	32.6	32.6	32.8	32.7	32.6

[1] Data relate to production workers in mining and manufacturing; to construction workers in construction; and to nonsupervisory workers in transportation and public utilities; wholesale and retail trade; finance, insurance, and real estate; and services. These groups account for approximately four-fifths of the total employment on private nonagricultural payrolls.

p = preliminary.

Table B-3. Average hourly and weekly earnings of production or nonsupervisory workers[1] on private nonagricultural payrolls by industry

Industry	Average hourly earnings				Average weekly earnings			
	MAY 1978	MAR. 1979	APR.[p] 1979	MAY[p] 1979	MAY 1978	MAR. 1979	APR.[p] 1979	MAY[p] 1979
TOTAL PRIVATE	$5.62	$6.02	$6.02	$6.07	$200.63	$214.91	$211.30	$215.49
Seasonally adjusted	5.62	6.04	6.04	6.08	201.76	216.84	213.82	216.45
MINING	7.64	8.26	8.51	8.42	331.58	354.35	363.38	365.43
CONSTRUCTION	8.52	8.96	9.00	9.07	312.68	331.52	319.50	333.78
MANUFACTURING	6.07	6.55	6.54	6.62	245.23	265.93	254.41	266.12
DURABLE GOODS	6.47	6.99	6.96	7.06	265.27	289.39	272.74	288.75
Lumber and wood products	5.49	5.84	5.91	5.98	219.05	231.65	231.08	239.20
Furniture and fixtures	4.61	4.95	4.94	4.97	180.71	193.05	185.25	189.36
Stone, clay, and glass products	6.25	6.63	6.71	6.77	261.25	277.13	275.11	283.66
Primary metal industries	8.04	8.74	8.90	8.86	335.27	366.21	370.24	375.66
Fabricated metal products	6.27	6.72	6.63	6.75	257.70	277.54	256.58	271.35
Machinery, except electrical	6.63	7.18	7.09	7.18	277.13	305.87	285.02	300.12
Electric and electronic equipment	5.73	6.17	6.12	6.21	229.77	251.12	236.84	248.40
Transportation equipment	7.75	8.41	8.25	8.52	326.28	354.90	313.50	355.28
Instruments and related products	5.65	6.04	6.03	6.11	230.52	249.45	240.60	249.29
Miscellaneous manufacturing	4.84	4.95	4.96	5.03	188.03	194.04	186.50	193.15
NONDURABLE GOODS	5.44	5.85	5.89	5.91	213.79	230.49	225.59	230.49
Food and kindred products	5.75	6.12	6.19	6.28	227.70	242.35	242.03	244.28
Tobacco manufacturers	6.41	6.74	6.91	6.85	247.43	256.79	259.82	264.68
Textile mill products	4.19	4.52	4.47	4.51	170.11	182.61	172.54	179.95
Apparel and other textile products	3.89	4.19	4.18	4.21	139.26	148.33	141.70	147.35
Paper and allied products	6.37	6.88	6.82	6.94	272.64	293.09	288.56	296.34
Printing and publishing	6.38	6.74	6.70	6.78	237.34	254.10	244.55	251.54
Chemicals and allied products	6.93	7.36	7.49	7.48	289.67	308.38	314.58	313.41
Petroleum and coal products	8.52	9.28	9.41	9.24	365.51	406.46	416.86	400.09
Rubber and misc. plastics products	5.43	5.83	5.80	5.92	221.00	241.36	228.52	240.35
Leather and leather products	3.88	4.17	4.19	4.18	146.28	149.70	147.07	150.06
TRANSPORTATION AND PUBLIC UTILITIES	7.45	7.89	7.87	7.92	297.26	314.81	307.72	312.84
WHOLESALE AND RETAIL TRADE	4.61	4.98	4.99	4.99	150.75	161.35	162.18	161.68
WHOLESALE TRADE	5.78	6.24	6.30	6.29	223.69	242.74	243.18	244.05
RETAIL TRADE	4.15	4.47	4.48	4.48	128.24	135.44	137.09	136.64
FINANCE, INSURANCE, AND REAL ESTATE	4.85	5.16	5.22	5.19	176.06	187.31	190.61	187.88
SERVICES	4.95	5.27	5.30	5.29	161.37	171.80	172.25	171.40

[1] See footnote 1, table B-2.

p=preliminary.

ESTABLISHMENT DATA

Table B-4. Hourly earnings index for production or nonsupervisory workers[1] on private nonagricultural payrolls by industry division, seasonally adjusted

(1967=100)

Industry	MAY 1978	DEC. 1978	JAN. 1979	FEB. 1979	MAR. 1979	APR. P 1979	MAY P 1979	Percent change from— MAY 1978–MAY 1979	Percent change from— APR. 1979–MAY 1979
TOTAL PRIVATE NONFARM:									
Current dollars	211.0	220.7	222.8	223.9	225.3	226.8	227.1	7.6	0.1
Constant (1967) dollars	109.1	108.6	108.6	107.8	107.3	106.9	N.A.	(2)	(3)
MINING	237.3	249.1	251.7	253.3	256.0	264.1	261.9	10.3	-.8
CONSTRUCTION	206.0	212.5	213.8	216.3	216.5	217.6	216.3	5.0	-.7
MANUFACTURING	213.5	224.1	225.4	229.1	228.8	230.9	231.6	8.5	.3
TRANSPORTATION AND PUBLIC UTILITIES	229.2	238.3	240.7	241.6	242.7	241.9	241.0	5.1	-.8
WHOLESALE AND RETAIL TRADE	208.0	216.6	217.6	218.1	219.8	220.8	220.7	6.2	-.1
FINANCE, INSURANCE, AND REAL ESTATE	192.4	202.0	202.3	203.9	204.3	207.3	205.7	6.9	-.8
SERVICES	210.4	218.9	221.7	222.2	223.5	225.3	224.4	6.7	-.4

[1] See footnote 1, table B-2.

[2] PERCENT CHANGE WAS -2.5 FROM APRIL 1978 TO APRIL 1979, THE LATEST MONTH AVAILABLE.

[3] PERCENT CHANGE WAS -.4 FROM MARCH 1979 TO APRIL 1979, THE LATEST MONTH AVAILABLE.

N.A. = not available.

P=preliminary.

NOTE: All series are in current dollars except where indicated. The index excludes effects of two types of changes that are unrelated to underlying wage-rate developments: Fluctuations in overtime premiums in manufacturing (the only sector for which overtime data are available) and the effects of changes in the proportion of workers in high-wage and low-wage industries.

Table B-5. Indexes of aggregate weekly hours of production or nonsupervisory workers,[1] on private nonagricultural payrolls by industry, seasonally adjusted

(1967=100)

Industry division and group	1978 MAY	JUNE	JULY	AUG.	SEPT.	OCT.	NOV.	DEC.	1979 JAN.	FEB.	MAR.	APR.P	MAY P
TOTAL PRIVATE	120.0	120.6	120.6	120.4	120.8	121.6	122.4	122.9	122.6	123.2	124.7	122.5	123.7
GOODS-PRODUCING	105.1	106.0	106.1	105.4	105.5	106.5	108.0	109.1	108.7	109.1	111.0	106.3	109.2
MINING	143.1	144.0	143.5	145.7	144.4	145.2	148.8	149.7	149.2	149.3	150.0	149.7	149.4
CONSTRUCTION	117.1	122.8	124.2	122.8	122.6	123.8	124.3	126.5	120.6	122.4	131.5	124.9	130.4
MANUFACTURING	101.6	101.7	101.6	101.0	101.2	102.1	103.7	104.6	105.2	105.4	106.0	101.6	104.8
DURABLE GOODS	103.5	103.8	104.8	103.5	103.9	105.5	107.1	108.3	108.8	109.6	110.2	104.3	107.8
Lumber and wood products	111.8	113.6	112.3	110.7	111.6	113.9	115.3	116.2	118.6	115.5	116.9	112.9	112.4
Furniture and fixtures	110.3	109.5	108.3	106.4	106.2	107.5	108.6	109.4	110.0	108.6	109.7	105.3	105.1
Stone, clay, and glass products	111.4	112.4	111.1	109.8	110.1	110.8	112.0	113.3	111.5	112.2	115.1	111.5	112.5
Primary metal industries	93.9	94.1	94.6	95.3	95.5	96.0	99.0	98.2	99.7	100.5	99.6	99.0	99.7
Fabricated metal products	103.3	102.4	102.0	101.6	102.0	103.1	105.2	106.0	106.6	106.6	107.9	101.1	104.1
Machinery, except electrical	109.5	111.3	112.1	110.8	111.5	113.6	114.5	116.9	117.0	119.2	119.0	114.3	119.4
Electric and electronic equipment	99.8	99.8	101.8	101.1	100.1	101.4	102.6	103.4	105.1	106.4	107.8	102.6	106.1
Transportation equipment	96.6	95.8	96.2	96.1	97.7	100.4	102.8	103.8	104.7	105.0	104.8	92.5	100.7
Instruments and related products	120.8	122.4	123.6	123.9	123.9	124.5	125.7	126.9	126.8	130.0	131.3	127.8	130.0
Miscellaneous manufacturing industry	101.5	101.4	99.8	100.6	100.3	100.9	101.8	101.5	102.9	102.3	102.8	98.1	98.4
NONDURABLE GOODS	98.9	98.7	98.1	97.2	97.2	97.2	98.8	99.1	99.9	99.2	99.6	97.5	98.5
Food and kindred products	94.6	94.0	93.6	91.6	91.3	92.2	94.6	96.1	97.0	95.3	97.0	95.8	96.8
Tobacco manufacturers	81.5	84.1	78.6	71.5	74.5	73.5	73.5	77.6	74.8	73.5	78.4	77.2	80.3
Textile mill products	92.6	91.8	91.5	91.2	91.8	91.6	92.4	92.2	93.6	91.3	92.3	88.0	90.3
Apparel and other textile products	91.9	91.4	90.1	90.1	90.1	88.7	90.0	89.8	89.6	89.2	88.8	86.0	87.6
Paper and allied products	101.9	101.9	101.9	99.2	99.0	98.2	100.5	100.7	101.7	102.5	103.5	102.6	103.2
Printing and publishing	98.2	98.6	99.1	98.3	97.8	98.5	100.3	100.1	101.1	101.7	102.0	100.0	101.4
Chemicals and allied products	106.9	106.9	106.6	106.0	106.0	106.2	107.2	107.0	107.8	107.6	107.5	107.4	108.2
Petroleum and coal products	118.4	120.4	121.2	123.2	122.7	123.0	124.7	124.2	123.3	124.2	127.4	127.4	124.8
Rubber and misc. plastics products	146.6	147.8	146.2	145.6	145.8	147.0	149.6	152.3	153.9	154.9	154.5	147.6	151.5
Leather and leather products	70.4	70.1	67.1	69.1	69.6	68.8	67.3	66.5	66.7	64.2	63.7	62.0	63.1
SERVICE-PRODUCING	130.5	130.7	130.7	130.6	131.4	132.0	132.3	132.5	132.3	132.9	134.2	133.7	133.7
TRANSPORTATION AND PUBLIC UTILITIES	109.0	109.4	106.5	107.7	108.2	109.9	110.2	110.3	111.2	111.2	112.2	107.8	110.4
WHOLESALE AND RETAIL TRADE	126.0	126.8	127.4	127.2	127.5	128.2	128.4	128.7	127.6	128.4	129.5	129.8	129.4
WHOLESALE TRADE	125.2	126.1	125.7	126.1	127.1	127.4	127.6	128.5	128.4	128.9	130.8	130.0	130.3
RETAIL TRADE	127.3	127.0	128.0	127.7	127.7	128.5	128.7	128.8	127.3	128.2	129.0	129.8	129.1
FINANCE, INSURANCE, AND REAL ESTATE	136.2	137.9	139.8	139.2	139.6	140.5	140.6	140.9	141.7	142.0	142.4	143.7	142.7
SERVICES	143.8	143.9	144.1	144.1	145.1	145.8	145.6	145.6	145.8	146.6	148.6	148.2	147.9

[1] See footnote 1, table B-2.

P=preliminary.

Table B-6. Indexes of diffusion: Percent of industries in which employment[1] increased

Year and month	Over 1-month span	Over 3-month span	Over 6-month span	Over 12 month span
1976				
January	78.2	85.8	87.2	85.2
February	72.4	84.9	85.8	84.0
March	69.5	81.4	82.0	85.2
April	70.1	72.4	75.6	78.8
May	58.1	67.2	68.3	82.6
June	57.8	65.1	71.2	79.9
July	58.4	57.8	63.1	78.5
August	49.1	64.0	65.1	77.6
September	64.8	53.8	66.3	80.2
October	47.1	65.1	73.3	80.8
November	67.4	64.2	78.8	80.8
December	66.6	81.4	81.4	82.6
1977				
January	76.2	83.1	88.1	78.8
February	66.0	86.3	87.8	80.5
March	74.7	81.1	85.2	80.2
April	68.0	79.4	79.4	84.6
May	64.8	76.2	75.9	84.0
June	71.2	68.0	72.1	83.1
July	59.3	63.4	69.8	82.6
August	51.7	58.7	74.1	83.7
September	60.8	62.5	72.1	82.6
October	60.5	73.8	77.9	81.1
November	73.8	75.3	82.0	81.1
December	72.1	79.7	83.1	80.8
1978				
January	69.8	80.2	85.5	80.5
February	70.3	80.2	79.9	79.1
March	70.1	75.9	77.9	77.6
April	62.8	67.4	68.9	78.5
May	56.4	63.7	67.7	80.5
June	67.2	62.5	59.6	82.6
July	54.9	57.0	61.3	82.0
August	51.7	49.7	74.4	77.6
September	57.6	58.7	77.9	75.3
October	70.6	75.6	83.1	72.7p
November	80.2	85.5	84.6	73.0p
December	79.7	87.2	86.0	
1979				
January	74.1	82.3	81.4p	
February	65.1	77.9	69.5p	
March	62.5	60.2p		
April	45.1p	50.9p		
May	47.7p			
June				
July				
August				
September				
October				
November				
December				

[1] Number of employees, seasonally adjusted, on payrolls of 172 private nonagricultural industries.
p = preliminary.

Ms. NORWOOD. My colleagues and I will now be glad to answer any questions you have.

Senator SARBANES. Would you want to address the figures that appeared this morning with the story about the economic indicators that are off sharply—the 3.3-percent drop in the chief economic indicators—particularly the observation that this is the sharpest drop in key economic indicators since 1974? Actually it's the largest on record, as I understand, the only drop comparing with the 3-percent drop at the start of the 1974–75 recession.

Now, the figures you give us this morning are of concern, and as you know at the end they represent a clear slowdown in employment growth. They would not appear to present quite as serious a situation as the chief economic indicators would appear to, or maybe they do, properly interpreted in relationship to the chief economic indicators.

Ms. NORWOOD. I'd be glad to comment on that. The first thing is that we've got to be very careful in looking at 1-month changes in any set of data.

You will note that the leading indicators release actually revised the previous month, not this last one, but the previous month, from a minus to a plus. So revisions can occur. That's the first point.

The second point is that the series which had the largest effect on the leading indicators was the drop in hours, the weekly hours.

Now, as I indicated in my statement today, our data this month show a rebound from the drop in hours last month which was included in the leading indicators. That's because the month of April clearly had some very special factors associated with it.

There was a drop in hours in April. There was a drop in employment which was clearly attributable to the trucking strike-lockout, to the fact that both Easter and Passover were holidays that occurred during the survey week.

If the leading indicators were calculated without the drop in hours, instead of a decline of 3.3 percent, there would have been a decline of only 1.6 percent.

So I think we have to look at all these things together. April was a month that was quite unusual. That's why you will note in my statement, I have gone back to March. I think we've got to look at this over a longer period of time.

Senator SARBANES. Well, I'm one who is very deeply concerned about unemployment figures and who feels very keenly that allowing unemployment to rise is not an answer to our economic problems. It's a problem in and of itself, not a contribution toward the solution of our problem.

On the other hand, I note that even though you conclude we've had a slowdown—a clear slowdown in employment growth—we've still maintained the unemployment rate of 5.8 percent.

I take it that represents what? A shrinking in the labor force? Those seeking jobs? And what lies behind that, if you know?

Ms. NORWOOD. That's a very good question but a very difficult one to answer.

The changes in the labor force over the last year especially have been extraordinary. We have had enormous growth in the labor force. In fact, most of the projections that have been made have always underestimated the very, very large increases in the labor force.

There are two elements which I think have been responsible for the especially big changes. One has been young people. One of the things that is clear now, and it's just a fact, is that there are fewer young people; those born in the early 1960's are getting older, and the birth rate has declined since. So I think that the effect of the young people on the labor force increase is beginning to change, just because there are fewer 16- to 19-year-olds in the population now.

The situation with women is somewhat different. The participation rates for women have been extraordinarily high. Whether they will continue to rise or whether there will be a pause, is really very difficult to predict. But we do have a lot of women in the labor force, and it may be that conditions are changing. It's very hard to tell whether the participation role for women will continue to increase as rapidly as in the recent past.

And I think those are the two big factors that we're just not sure of.

Senator SARBANES. Well, now, looking back to last month's hearing, a great deal of time was devoted to this gap, I guess, between the household survey and the establishment survey.

Now, that has not reoccurred this month, at least not to a significant degree. Do you have an explanation for last month's? Was it an aberration? If so, do you have an explanation for it?

Ms. NORWOOD. We never expect that these two surveys will register exactly the same movements in the same period of time.

First of all, there are rather important definitional differences. The household survey covers total employment, including the self-employed and unpaid family workers, whereas the establishment survey is a payroll survey. So there are basic differences between them.

The household survey in the month of April showed a very large decline. I said last month that I thought that that was probably a larger decline than we can rely upon. I think I used the words "statistical aberration." I still believe that that was the case. There has been a small rise this month in the household survey, and if you take that over the 2 months and average it, the drop in employment is somewhat smaller. And I think that's probably in the neighborhood of where we are.

There's a one-half million drop in the household survey which is still larger than anything shown in the establishment survey. But the establishment survey is showing very clearly a slowdown in employment growth.

So I think the two can be looked at together, and we can reach the judgment, certainly, that there is a slowdown.

Senator SARBANES. Looking ahead, what terms are at work that would give us a basis on which to make some estimation—I know you probably don't want to do this—but some estimation as to what figures we will be facing next month; and what the continued movement, as reflected in all of the figures we have looked over, seems to indicate.

Ms. NORWOOD. As you indicate, we don't forecast the future. But I think that I can say that the data for the month of April, not just BLS data, but other surrounding data; new orders, durable orders, housing starts, industrial production, and so on, all seem to have shown a decline in the month of April.

The employment situation data released by the BLS this morning are the first signals for the month of May. We don't have much other data. These are the early data coming out for May. They certainly show that the rate of growth of employment has clearly slowed down; and we don't know, of course, what the future will bring. But, if you take all those things together, you have a slowdown.

Senator SARBANES. If you had read the economic indicator data without knowing what the figures were that you were going to bring in this morning, what would you have expected to bring in? Would you have expected to bring in an increase in the unemployment rate?

Ms. NORWOOD. Not really.

Senator SARBANES. No?

Ms. NORWOOD. I think the leading indicators index is certainly an extremely useful indicator of the economy; but I think we have to be rather careful not to rely on a single month of it, or even a period of several months of the indicators, without looking at a lot of other things. In fact, in the last three decades the leading indicators declined 17 times over a period of 3 months. In 15 cases the unemployment rate rose in 1 to 3 months after those declines. In six cases the unemployment rate rose in 1 month after it. But I think one very interesting point is that since July 1977, which is the last time the leading indicators fell for 3 consecutive months, the unemployment rate has not risen.

Senator SARBANES. Now, how do you explain that?

Ms. NORWOOD. I think that in many ways we are seeing different conditions which make it much harder to predict exactly where we are going.

For example, in previous periods of economic downturn the rate of inflation has generally been reduced fairly quickly. In the 1973–74 recession, that did not happen. We had a different situation. It is possible that we may now, because we have had such a very rapid and large change in the labor force, be facing a somewhat different situation, too. I just don't know.

Senator SARBANES. When the labor force changes, I see you refer to it in your release, that its 4.4-percent civilian labor force participation increase was somewhat below the February–March period, half a point. But that was the highest in history; is that right? Now, how does that compare, looking back over a reasonable period of time?

Mr. STEIN. Senator, the labor force rate has been rising approximately 1 percent a year over recent years, but of course there are fluctuations over shorter periods of time.

Senator SARBANES. What do you mean by "recent years"?

Mr. STEIN. Since coming out of the 1975 recession.

Senator SARBANES. What was the previous plateau, if there was one for labor force participation, to compare against the 1963 to 1964 percent figure?

Mr. STEIN. We'd have to check the figures on that, but I believe there was a plateau during 1977.

Senator SARBANES. No; earlier.

Mr. STEIN. Earlier than that?

Senator SARBANES. Yes.

Mr. STEIN. We have had them from time to time, but inevitably the participation rate resumed.

Senator SARBANES. Is the bureau completely revising its concept of what the percent of labor force participation is, which is an assumed sort of standard in the American economy? Essentially, from what figure have they revised it in terms of what the traditional assumption was?

Ms. NORWOOD. Well, you know we have a program projecting the labor force to 1990. We have found that our labor force increased much more rapidly than we had anticipated in past years. This was due to a large increase of women entering the labor force in recent years.

We tried a new approach, and that was to develop three different estimates of the possible labor force in 1990, assuming a very high growth path, a more moderate path of growth in the labor force, and then a lower one. So we have been trying to cope with that problem by suggesting that there are alternatives, because there is no way of knowing what the real truth would be.

Senator SARBANES. What assumptions do the three growth patterns you projected make, with respect to the level of civilian labor force participation?

Ms. NORWOOD. I am not sure of the exact assumptions, but I can certainly submit that for the record.

Senator SARBANES. It would be helpful to have.

[The following information was subsequently supplied for the record:]

Labor force projections to 1990: three possible paths

High, low, and intermediate rates of projected growth to 1990 all show a drop from the 1970–77 pace; in each, women's participation rates keep rising, the rates for men rise only with high growth

PAUL O FLAIM AND HOWARD N FULLERTON, JR.

For the first time, the Bureau of Labor Statistics has developed three significantly different projections of future growth for the U.S. work force. Although based on different assumptions about the labor force participation rates for various population groups, all three scenarios anticipate declining rates of labor force growth. As shown in table 1, only during the near-term 1977–85 period and only under high-growth assumptions would the labor force continue to expand at the unprecedented 2.3-percent rate of the 1970's. Behind the general slowdown in labor force growth is the sharp drop of the birth rate in the 1960's, which means fewer youths will be reaching working age in the 1980's. Based on underlying population trends, the scenarios for high, low, and intermediate labor force growth can be summarized as follows:

High growth. The civilian labor force would reach 126 million persons by 1990, primarily based on a continuing surge in the labor force participation rates of women, which would reach 60 percent. Participation rates for black men would reverse their recent downward trend and nearly equal the slightly increased 80-percent rate of white men. Rates for older workers would decline only slightly.

Low growth. The civilian labor force would grow to only 114 million by 1990. The participation rates for women would grow at a much slower pace, corresponding with a projected increase in currently low fertility rates; their participation rate would reach only 54 percent. The rates for men and older workers of both sexes would continue to drift downward at about the same rates as in the 1970's.

Intermediate growth. The civilian labor force would grow to 119 million persons by 1990 under this moderate-growth assumption. The participation rate of women would continue to advance at its current pace until 1985, then taper off with more

As explained in this article, the takeoff points used in making the three sets of projections are 1977 annual averages. Calculated in early 1978, the projections have the following implicit labor force levels for 1978: high growth, 100.1 million; low growth, 97.3 million; and intermediate growth, 99.7 million.

The extremely rapid pace of labor force growth that unexpectedly continued through the first half of 1978 now indicates that the increase between the annual averages for 1977 and 1978 will approach 3 million. This growth is 1 million higher than the average annual gains posted during the 1970–77 period. As a result, the 1978 actual annual average probably will be slightly above the level implicit in the high-growth scenario. It is, of course, much too early to tell how this development will affect labor force growth to 1985 and 1990. However, it is suggested that those who use these projections to construct their own estimates of the labor force for the next 2 or 3 years note how the actual labor force growth during the 1977-78 period compares with the growth implicit in these long-term projections.

Paul O. Flaim is chief, Division of Labor Force Studies, Bureau of Labor Statistics. Howard N Fullerton, Jr., is a labor economist in the same division. An earlier version of this article was presented at the annual meeting of the American Statistical Association held in San Diego in August 1978.

Reprinted from December 1978
Monthly Labor Review

U.S. DEPARTMENT OF LABOR
Bureau of Labor Statistics

Table 1. Civilian labor force participation rates based on three different growth paths to 1990

Growth paths	Civilian labor force									
	Actual (in millions)		Projected (in millions)		Annual percent change[1]			Civilian labor force participation rates			
								Actual		Projected	
	1970	1977	1985	1990	1970 to 1977	1977 to 1985	1985 to 1990	1970	1977	1985	1990
Total											
High growth path			117.0	125.6		2.3	1.4			67.7	69.7
Intermediate growth path	82.7	97.4	113.0	119.4	2.3	1.9	1.1	60.4	62.3	65.3	66.2
Low growth path			108.9	113.5		1.4	.8			63.0	63.0
Men											
High growth path			65.0	68.2		1.6	1.0			78.4	80.0
Intermediate growth path	51.2	57.4	63.0	65.1	1.7	1.2	.7	79.7	77.7	77.0	76.4
Low growth path			61.2	62.5		.8	.4			74.7	73.3
Women											
High growth path			52.0	57.4		3.3	2.0			57.1	60.4
Intermediate growth path	31.5	40.0	49.9	54.3	3.4	2.8	1.7	43.3	48.4	54.8	57.1
Low growth path			47.7	51.0		2.2	1.3			52.4	53.8

[1] Compounded continuously.

moderate increases to reach a 57-percent participation level by 1990. The rates for men would continue to drop, but at a more moderate pace. This would also be the case for older workers.

It is the custom of BLS to update and revise its labor force projections every 2 or 3 years. The updates and revisions are necessary because the actual path of labor force growth has often diverged considerably from the projections. This has been especially the case during the 1970's, when the phenomenal growth of women in the labor force has far exceeded the projections by BLS—as well as those of many other forecasters.

The reasons for the divergences between projections and the actual labor force trends were the topic of a special evaluation by BLS.[1] On the basis of this evaluation, some changes in the methodology have been introduced in making a new round of projections. In addition, three alternative sets of projections, rather than the typical single projection, have been prepared.[2]

Population trends

In making labor force projections, BLS generally has relied upon the population projections prepared by the Bureau of the Census; this procedure was followed once again. The specific population estimates used were those published by the Bureau of the Census in July 1977, covering the 1977–2050 period.[3] The population data for the period covered by this round of labor force projections—only 12 years—contain little uncertainty. After all, even the persons who will be 16 years of age in 1990 are already 4 years old, and thus can be counted with reasonable accuracy.

There are, of course, some minor problems even in projecting a population that can be counted. Important assumptions must be made about the future course of mortality rates and about net migration trends. The decennial census is used as the starting points for the projections. It has long been known that census counts are deficient for some groups.[4] Despite these problems, the basic trends in the size and configuration of the American population can be charted with some assurance from now to 1990. The changes implicit in these trends will have a great impact on the growth of the labor force.

Perhaps the most important feature of the population dynamics for the 1980's will be the sharp decline in the number of youths age 16 to 24, which is an inevitable consequence of the drop in the birth rate during the 1960's. Reflecting this development, the civilian noninstitutional population age 16 and over, which should grow by 26.8 million or 19.6 percent from 1970 to 1980, is projected to grow by only 16.4 million or 10.0 percent from 1980 to 1990.

The population trends for the major age-sex-race groups are shown in table 2. The "net changes" columns in this table show most dramatically how the past growth of the teenage ranks will be reversed between now and 1985 and how, with some obvious delay, this process also will affect the ranks of those age 20 to 24. Clearly, there will be many fewer young persons in the late 1980's than is the case today.

Another important demographic development is that, while the teenage ranks thin, the population in the central age groups will swell, as the millions of persons born in the post-World-War II baby boom reach middle age. The sharp drop in the youth population combined with the crowding of the baby-boom cohorts into middle age will have a large impact on the growth and configuration of the Nation's labor force. Labor force growth, however, is also a function of the trends in labor force participation among the various population

groups. The projections of these trends is fraught with much more uncertainty than the projections of population trends.

Problems in projecting participation

In projecting the labor force participation rates of the various population groups, BLS generally has relied on extrapolation of the historical trends in the rates for these groups. This procedure, with some modifications, was followed again in making these new sets of projections. The possibility of tying the participation projections to the future course of other variables which are known to influence participation—wage rates, for example—was considered, but was rejected as impractical. Also considered—but deferred at least until further research is conducted—was the option of making "cohort" projections, where specific groups are followed through time.

This is not to say that the projections presented here are based on purely linear—and mechanical—extrapolation of historical trends. They are not. Where extrapolation of past trends yields a future scenario that is either physically impossible—such as labor force participation rates exceeding 100 percent or dropping below zero—or a situation that seems highly implausible given the prevailing notions about what the future will (or should) be like, BLS analysts have intervened to alter the course of the extrapolated line.

To illustrate one of the latter problems, if labor force participation rates of women age 25 to 29—one of the principal childbearing groups—were extrapolated linearly from their rapidly rising trends of the 1970's, they would cross the rates for men of comparable age before the 1980's are over. Could this be visualized as a plausible situation? We think not, even if the fertility rate, which is one of the determinants of labor force participation for this group, remains at its currently depressed levels. And should the fertility rate rise significantly, these women could hardly be expected to enter the job market in ever larger numbers. Therefore, in projecting the labor force participa-

Table 2. Civilian noninstitutional population, by age, sex, and race; actual 1970 and 1977, projected 1985 and 1990

[Numbers in thousands]

Sex, age, and race	Actual population		Projected population		Net changes			Annual percent change[1]		
	1970	1977	1985	1990	1970 to 1977	1977 to 1985	1985 to 1990	1970 to 1977	1977 to 1985	1985 to 1990
Total, age 16 and over	136,995	156,426	172,935	180,236	19,431	16,509	7,301	1.89	1.25	0.83
Men, age 16 and over	64,261	73,963	81,851	85,265	9,702	7,888	3,414	2.01	1.27	.82
16 to 24	13,993	17,363	16,320	14,657	3,370	-1,043	-1,663	3.06	-.77	-2.15
16 to 19	7,142	9,167	6,874	6,477	1,025	-1,293	-397	1.92	-2.15	-1.19
20 to 24	6,851	9,196	9,446	8,180	2,345	250	-1,266	4.21	.34	-2.88
25 to 54	33,592	37,885	44,714	49,240	4,293	6,829	4,526	1.72	2.07	1.93
55 and over	16,677	18,714	20,817	21,368	2,037	2,103	551	1.65	1.33	.52
55 to 64	8,588	9,816	10,217	9,820	930	899	-397	1.47	.89	-.79
65 and over	8,089	9,196	10,600	11,548	1,107	1,404	948	1.83	1.78	1.71
Women, age 16 and over	72,734	82,462	91,084	94,971	9,728	8,622	3,887	1.79	1.24	.84
16 to 24	15,624	18,166	17,098	15,409	2,342	-1,068	-1,689	1.97	-.76	-2.06
16 to 19	7,371	8,303	7,016	6,596	932	-1,287	-420	1.70	-2.11	-1.23
20 to 24	8,453	9,863	10,082	8,813	1,410	219	-1,269	2.20	.27	-2.69
25 to 54	36,354	40,574	47,363	52,067	4,220	6,789	4,704	1.57	1.93	1.89
55 and over	20,556	23,717	26,623	27,495	3,161	2,906	872	2.04	1.44	.64
55 to 64	9,649	10,648	11,292	10,738	998	644	-554	1.41	.73	-1.01
65 and over	10,907	13,069	15,331	16,757	2,162	2,262	1,426	2.58	2.00	1.78
White										
Total, age 16 and over	122,112	137,595	150,057	155,001	15,483	12,462	4,944	1.71	1.08	.65
Men age 16 and over	57,486	65,478	71,525	73,875	7,990	6,047	2,350	1.86	1.10	.65
16 to 24	12,160	14,964	13,717	12,075	2,804	-1,247	-1,642	2.96	-1.09	-2.56
25 to 54	30,104	33,597	39,123	42,760	3,493	5,526	3,637	1.57	1.90	1.78
55 and over	15,224	16,917	18,685	19,040	1,693	1,768	355	1.51	1.24	.38
Women, age 16 and over	64,624	72,117	78,532	81,126	7,493	6,415	2,594	1.57	1.07	.65
16 to 24	13,704	15,407	14,166	12,530	1,703	-1,241	-1,636	1.67	-1.05	-2.45
25 to 54	32,108	35,245	40,488	44,146	3,137	5,243	3,658	1.33	1.75	1.73
55 and over	18,812	21,465	23,878	24,450	2,653	2,413	572	1.88	1.33	.47
Black and other										
Total, age 16 and over	14,883	18,831	22,836	25,171	3,948	4,005	2,335	3.36	2.41	1.95
Men, age 16 and over	6,775	8,486	10,326	11,389	1,713	1,807	1,046	3.22	2.41	1.94
16 to 24	1,832	2,401	2,586	2,559	569	185	-27	3.86	.93	-.21
25 to 54	3,488	4,288	5,574	6,454	800	1,286	880	2.95	3.28	2.93
55 and over	1,454	1,796	2,133	2,326	342	337	193	3.02	2.15	1.73
Women, age 16 and over	8,110	10,345	12,543	13,832	2,235	2,198	1,289	3.48	2.41	1.98
16 to 24	2,118	2,759	2,914	2,860	641	155	-54	3.78	.68	-.37
25 to 54	4,247	5,333	6,876	7,922	1,086	1,543	1,046	3.25	3.18	2.83
55 and over	1,744	2,252	2,753	3,050	508	501	297	3.85	2.51	2.05

[1] Compounded continuously.

tion rates for women, it seemed logical to apply the constraint that these rates not be allowed to cross the participation rates for men of comparable age.

A dilemma of a slightly different nature arises in making separate projections of labor force growth by race. Here, linear extrapolations of historical trends yield an ever-larger gap between the participation rate of white men and the already much lower rate of black men. Although certainly plausible, such a future scenario can be hardly reconciled with a National policy intended to lead to an equalization of employment opportunity for the two races.

Aside from such obvious problems, many other areas of uncertainty with regard to the future trends in participation can be listed. Take, for example, the extent to which the youth of the future might choose school over work, or vice versa; the possible impact of recent changes in retirement legislation on the labor force activity of older workers; and the future course of transfer payments and their possible impact on the propensity to work among recipients in all age groups. To deal more effectively with these and other uncertainties, three different sets of projections, rather than a single one, were prepared.

The three basic paths

Although yielding significantly different results in terms of the overall labor force levels for 1985 and 1990, the three sets of projections still have a considerable degree of commonality among them. All three are based on assumptions of: further rises in the labor force participation rates of teenagers of both sexes; considerable further gains in labor force activity among women in the central age groups; and further declines in the participation rates of older workers of both sexes. (See table 3.) With regard to these three groups and, particularly, with regard to whites in these groups, the three sets of projections point in the same general directions and differ only in terms of the expected rate of change.

With regard to the participation rates for men in the central age groups, those for whites are again projected to diverge little under the three alternative growth paths. Generally, they are held constant in the high-growth projections, decline only very slightly in the intermediate-growth projections, and are allowed to decline a bit more in the low-growth projections.

The group for which the three sets of projections differ most radically in terms of direction (or sign) are black men. For this group, the low-growth projections follow the declining path which has been evident in recent years, whereas the high-growth projections trace the steep upward-sloping path that these rates would have to follow if they were to reach the high-growth rate for white men by the year 2000. (And the latter, as noted above, were generally held constant at current levels.)

For some black groups, the high-growth projections would entail a sharp departure from the trends in participation exhibited over the past two decades. Although such a complete turnaround is unlikely (a few age groups have experienced recent gains), such projections are useful in illustrating what has been accomplished and what remains to be done in order to have blacks sharing equally in the economic progress of the Nation.

There is also a considerable degree of commonality among the three sets of projections in terms of the most basic changes in the age configuration of the labor force. Because the important changes in the population structure are reflected in all three sets of projections, each shows a large decline in the size of the youth labor force and a big increase in the labor force accounted for by persons age 25 to 54. (These changes in the size and configuration of the labor force are shown in absolute terms in table 4.) Now, we will examine the basic

Table 3. Civilian labor force participation rate by sex, age, and race, to 1990

(Percent)

Sex, age, and race	Actual		Projected					
			High growth		Intermediate growth		Low growth	
	1970	1977	1985	1990	1985	1990	1985	1990
Total, age 16 and over	60.4	62.3	67.7	69.7	65.3	66.2	63.0	63.0
Men, age 16 and over	79.7	77.7	79.4	80.0	77.0	76.4	74.7	73.3
16 to 24	69.4	74.1	78.9	81.0	78.4	78.1	74.4	73.3
16 to 19	58.1	61.0	68.8	70.8	63.6	64.8	61.5	61.9
20 to 24	83.3	85.7	87.8	89.1	85.7	85.0	83.7	82.4
25 to 54	95.8	94.2	95.1	95.6	93.5	93.1	92.2	91.1
55 and over	55.7	47.5	46.1	43.5	41.9	38.0	37.5	32.2
55 to 64	83.0	74.0	73.5	73.3	68.1	65.0	64.1	59.0
65 and over	26.8	20.1	19.7	18.1	16.7	15.0	11.9	9.4
Women, age 16 and over	43.3	48.4	57.1	60.4	54.8	57.1	52.4	53.8
16 to 24	51.3	59.8	73.2	78.2	69.8	72.8	68.2	67.3
16 to 19	44.0	51.4	63.5	68.9	59.7	62.8	55.4	56.8
20 to 24	57.7	66.5	79.9	85.2	78.8	80.4	73.7	75.2
25 to 54	50.1	58.4	70.9	76.1	68.5	72.4	65.9	69.0
55 and over	25.3	22.8	22.1	20.7	21.0	19.3	19.5	17.2
55 to 64	43.0	41.0	41.5	41.8	40.2	39.8	38.1	36.6
65 and over	9.7	8.1	7.8	7.2	6.8	6.2	5.9	4.8
White								
Total, age 16 and over	60.2	62.6	67.9	69.8	65.9	66.9	63.5	63.7
Men, age 16 and over	80.0	78.5	79.9	80.2	77.9	77.4	75.7	74.3
16 to 24	70.2	75.2	80.7	82.4	79.6	80.2	77.8	77.9
25 to 54	96.3	94.9	95.6	95.8	94.4	94.1	93.1	92.1
55 and over	55.8	48.0	46.4	43.6	42.2	38.1	37.7	32.2
Women, age 16 and over	42.8	48.1	57.1	60.4	54.9	57.4	52.4	53.9
16 to 24	52.1	61.8	76.5	81.6	73.7	77.7	70.0	72.0
25 to 54	48.8	57.6	71.1	76.6	68.5	72.9	65.7	69.3
55 and over	24.9	22.7	21.8	20.3	20.7	19.0	19.3	17.0
Black and other								
Total, age 16 and over	61.8	60.0	65.9	68.9	61.7	62.0	59.6	58.9
Men, age 16 and over	75.5	71.0	76.5	79.2	70.5	69.9	68.2	66.6
16 to 24	64.5	60.7	70.4	75.3	59.6	57.4	56.5	52.5
25 to 54	91.9	88.6	92.1	94.2	87.5	86.9	86.0	84.7
55 and over	54.8	43.0	43.4	42.1	39.3	36.6	36.1	31.9
Women, age 16 and over	49.5	50.9	57.2	60.5	54.4	55.5	52.6	52.7
16 to 24	46.2	47.4	57.5	64.1	51.4	52.0	48.0	47.2
25 to 54	59.1	63.6	70.1	73.3	68.2	69.9	67.1	67.7
55 and over	30.0	25.2	24.8	23.8	23.1	21.6	21.2	18.7

Table 4. Civilian labor force by sex, age, and race; actual 1970 and 1977, projected 1985 and 1990

[Numbers in thousands]

Sex, age, and race	Actual		Projected					
			High growth		Intermediate growth		Low growth	
	1970	1977	1985	1990	1985	1990	1985	1990
Total, age 16 and over	82,715	97,401	117,005	125,603	112,953	119,366	108,900	113,521
Men, age 16 and over	51,195	57,449	65,013	68,220	63,007	65,115	61,189	62,472
16 to 24	8,715	12,662	12,882	11,879	12,485	11,156	12,134	10,744
16 to 19	4,003	4,985	4,589	4,587	4,374	4,199	4,225	4,007
20 to 24	5,709	7,677	8,293	7,292	8,091	6,957	7,909	6,737
25 to 54	32,193	35,698	42,533	47,056	41,824	45,845	41,219	44,844
55 and over	9,286	8,888	9,598	9,285	8,718	8,114	7,816	6,884
55 to 64	7,124	7,043	7,506	7,197	6,953	6,363	6,551	5,796
65 and over	2,184	1,845	2,092	2,088	1,765	1,731	1,265	1,088
Women, age 16 and over	31,520	39,952	51,992	57,383	49,945	54,253	47,731	51,049
16 to 24	8,115	10,823	12,510	12,054	11,804	11,225	11,315	10,375
16 to 19	3,241	4,267	4,457	4,548	4,192	4,139	3,887	3,749
20 to 24	4,874	6,556	8,053	7,506	7,742	7,086	7,428	6,626
25 to 54	18,196	23,692	33,598	39,630	32,432	37,713	31,220	35,942
55 and over	5,209	5,432	5,886	5,699	5,580	5,313	5,196	4,732
55 to 64	4,153	4,367	4,683	4,487	4,536	4,270	4,297	3,925
65 and over	1,056	1,065	1,203	1,212	1,044	1,043	899	807
White								
Total, age 16 and over	73,518	86,107	101,951	108,253	98,676	103,751	95,285	98,686
Men, age 16 and over	46,013	51,421	57,137	59,234	55,753	57,185	54,147	54,921
16 to 24	8,533	11,405	11,084	9,954	10,925	9,689	10,678	9,401
25 to 54	28,988	31,900	37,399	40,976	36,949	40,237	36,425	39,380
55 and over	8,492	8,116	8,674	8,304	7,879	7,259	7,046	6,140
Women, age 16 and over	27,505	34,686	44,814	49,019	43,123	46,566	41,139	43,765
16 to 24	7,135	9,525	10,835	10,219	10,437	9,736	9,915	9,024
25 to 54	15,684	20,307	28,777	33,828	27,743	32,178	28,810	30,579
55 and over	4,686	4,864	5,202	4,974	4,943	4,652	4,613	4,162
Black and other								
Total, age 16 and over	9,197	11,294	15,058	17,350	14,079	15,615	13,618	14,836
Men, age 16 and over	5,182	6,028	7,879	8,986	7,254	7,930	7,022	7,550
16 to 24	1,181	1,458	1,800	1,926	1,542	1,468	1,460	1,343
25 to 54	3,205	3,798	5,134	6,080	4,875	5,606	4,792	5,464
55 and over	797	772	925	980	839	856	770	743
Women, age 16 and over	4,015	5,266	7,179	8,364	6,823	7,683	6,596	7,286
16 to 24	979	1,307	1,675	1,834	1,497	1,488	1,400	1,351
25 to 54	2,512	3,390	4,820	5,804	4,690	5,537	4,812	5,364
55 and over	523	568	684	726	636	660	584	571

differences among the three sets of projections and their underlying assumptions.

Intermediate growth path

Under the intermediate-growth assumptions, the civilian labor force would reach 113.0 million by 1985 and 119.4 million by 1990. Contributing to this growth would be the expansion of the working-age population and a rise in the civilian labor force participation rate from 62.3 percent in 1977 to 66.2 percent by 1990.

The basic assumptions which underlie this scenario are as follows:

- For men, labor force participation would continue to edge down, although not as fast as over the 1970–77 period. The overall participation rate for men would be 76.4 percent in 1990 compared with 77.7 percent in 1977.
- The only group of men for whom the participation rates would rise significantly under this scenario are teenagers—reaching a rate of 64.8 percent by 1990, up from 61.0 percent in 1977.
- Labor force participation rates of women would rise substantially, with the rise continuing at the pace of the 1970–77 period, then slowing down gradually to a more moderate rate of increase. Under these assumptions, the overall rate of labor force participation for women would rise from its 48.4-percent average for 1977 to 54.8 percent by 1985, reaching 57.1 percent by 1990.
- For older workers, both men and women, labor force participation would continue to decline under this scenario, but at a much slower pace relative to the drop registered over the 1970–77 period. For men age 55 and over, the labor force participation rate would drop from 47.5 to 38.0 percent between 1977 and 1990; for women age 55 and over, the rate would edge down from 22.9 to 19.3 percent over the same period.
- Continuing the pattern of the 1970's, the overall rate of participation would increase more for whites than for the "black and other"[5] component of the population. The civilian labor force rate for whites would rise from 62.6 to 66.9 percent over the 1977–90 period, while the rate for "black and others" would rise from 60.0 to 62.0 percent. Nevertheless, because of the much more rapid increase in the black population, the proportion of the labor force accounted for by "black and other races" would still increase some—from 11.6 to 13.1 percent.

Under these assumptions, women would continue to increase their share of the labor force, which would reach 45 percent by 1990, up from 41 percent in 1977. Another important development, inherent to this as well as the other two scenarios, is the large growth in the proportion of the labor

force in the central age groups. Reflecting, primarily, the sharp decline in the youth population and the anticipated continuation of the decline—albeit at a reduced pace—in labor force participation among older workers, the proportion of the work force accounted for by persons age 25 to 54 should expand from 61 to 70 percent over the 1977–90 period. The growing labor force role of persons age 25 to 54, who have considerable work experience and are generally very productive, should help to sustain the economic growth of the Nation.

High-growth scenario

Under the high-growth scenario, the civilian labor force would reach 117.0 million by 1985 and 125.6 million by 1990. Most of the growth underlying these assumptions would be accounted for by women, whose civilian labor force participation rate would rise to 57.1 percent by 1985 and to 60.4 percent by 1990. The basic assumptions which underlie the high-growth projection are the following:

- At least for the initial years of the projection period, the participation rates for women in the young and central age groups would continue to rise at the very rapid pace of the most recent years. (However, in no case would the rates for women cross the rates for men of comparable age.)
- The historical downward drift in the participation rates of white men in the central age groups would come to a halt, with these rates remaining essentially constant or rising slightly during the projection period.
- The participation rates for black men would not only halt their historical decline but would turn upward, so as to converge with the rates for white men of comparable age by the year 2000. However, they still would differ considerably in 1990.
- The participation rates of persons age 65 and over would not decline any further during the first 8 years of the projection period, reflecting the temporary impact of the recent legislation raising the minimum age of mandatory retirement to 70 in the private sector and banning the practice altogether for Federal workers.

Under this growth path, the proportion of the labor force accounted for by women would grow slightly faster than under the intermediate-growth scenario. With high growth, it would expand from 41 percent in 1977 to 46 percent in 1990. These projections would also entail a very significant expansion in the proportion of the labor force accounted for by blacks, whose participation rates under this scenario are assumed to move toward convergence with white rates. Should the path toward convergence be followed, there would be an increase in the "black and other" share of the civilian labor force from 11.6 percent in 1977 to 13.8 percent by 1990.

In terms of age distribution, the high-growth assumptions would imply an increase in the labor force proportion of persons age 25 to 54 from 61 percent in 1977 to 69.0 percent in 1990—an increase only slightly smaller than that implicit in the intermediate-growth scenario.

Low-growth scenario

Under the low-growth scenario, the civilian labor force is projected to grow only to 108.9 million by 1985 and to 113.5 million by 1990. As shown in table 1, this would imply an annual rate of growth of 1.4 percent (compounded) for the 1977–85 period and 0.8 percent for the 1985–90 period, substantially below the growth rate of 2.3 percent for the 1970–77 period. This very low rate of labor growth could be attained if:

- The labor force participation rates for adult men would continue to drift downward, at least for the initial years of the projection period. This would lower the civilian labor force participation rate of men to 73.3 percent by 1990, down from 77.7 percent in 1977.
- The rise in the labor force participation rates of women of child-bearing age would be slowed down considerably by a rebound from their currently low fertility rate. It was assumed for the purpose of these projections that, beginning in 1980, the fertility rate would move toward the Series I path in the Census projections, implying that each women would have an average of 2.7 children compared with the average of 1.8 children in recent years.[6] Principally because of this constraint, but also because the labor force rates for women outside the child-bearing group would be assumed to rise at a lesser pace than under either of the other two scenarios, the overall civilian labor force participation rate for women age 16 and over would rise to only 53.8 percent by 1990, up from 48.4 percent in 1977.
- The participation rates for older workers would continue to decline roughly at the pace of the 1970's, the hypothesis being, in part, that the recent changes in legislation concerning mandatory retirement might not have any impact on the labor force trends for older workers.
- The participation rates of teenagers would continue to advance but at a slower pace than implied in the other growth scenarios.

There are not yet any signs that the hypothesized rebound in the fertility rate, which is crucial to these participation assumptions, is about to take place. There are, nevertheless, some demographers who believe that it will take place. Richard Easterlin, for example, believes that the decline in the youth proportion of the population during the early 1980's will be accompanied by exactly such a phenomenon.[7]

Even under this scenario, however, the proportion of the labor force accounted for by women would expand significantly—from 41 percent in 1977 to 45 percent in 1990. There would again be a

substantial rise in the proportion of the labor force accounted for by persons age 25 to 54, as this is a development stemming essentially from population dynamics that are the same under each of the three scenarios. On the other hand, the racial composition of the labor force would change very little under these assumptions, as the participation rates for some black groups are allowed to decline considerably, nearly offsetting the increase in the black proportion of the population.

Socioeconomic implications

Inherent in the labor force growth paths traced by these sets of projections and in the population trends which underlie them are some important implications for the social and economic development of our Nation during the 1980's. There should be, for example, some improvement in the employment situation of youths. In general, the labor force should be more mature and thus somewhat more productive; the ratio of nonworkers to workers in the total population would narrow in at least two of the scenarios, a development that should lead to further improvements in our overall standard of living.

The coming decline in the youth population should lessen the competition for jobs among youths, narrowing the relative gap between their jobless rates and those for older workers. This gap was much smaller before the youth population began increasing rapidly during the mid-1960's, and its subsequent widening has been directly linked by some economists to the "crowding" effect caused by the entry of ever-larger numbers of youths into the job market.[8] Of course, the sharp reduction in the number of youths should also have a negative impact on college enrollments and on the production and marketing of those goods and services traditionally aimed at the youth market.

It should also be noted that the decline in the youth proportion of the population will not be nearly as pronounced for blacks as for whites. The black population historically has had a much higher birth rate than the white population and, thus, a larger component of young persons. This will continue to be the case. Although the birth rate also has been slackening among blacks, the number of black youths is still projected to rise slightly during the 1980's. Because black youths traditionally have had very high unemployment rates, the increase of the black proportion of the youth population will tend to keep the overall youth jobless rate high. It can be hypothesized, however, that even black youths will benefit substantially from the reduced competition for jobs among youths in general.

Although the number of youths in the labor force will drop, the number of workers age 25 to 54 will expand considerably, reflecting the gradual aging of the post-World War II baby boom. (See table 5.) The implications of this development are that the labor force, in general, will be more mature, composed of persons with considerable work experience, and, supposedly, very productive. In terms of potential output, this development should tend to offset, at least partially, the effects of the numerical decline in labor force growth during the 1980's. But it is worth noting again that, under all three sets of projections, there would be an increase in the proportion of the labor force who are women; this also has considerable implications in terms of potential output. The consequences of this development, as far as output is concerned, will depend heavily on the extent to which women—particularly those with children—will be able to work on a full-time basis.

Table 5. Labor force distribution, by sex, age, and race, to 1990

[Percent]

Sex, age, and race	Actual		Projected					
			High growth		Intermediate growth		Low growth	
	1976	1977	1985	1990	1985	1990	1985	1990
Total, age 16 and over	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Men, age 16 and over	61.9	59.0	55.6	54.3	55.8	54.6	56.2	55.0
16 to 24	11.7	13.2	11.0	9.5	11.0	9.3	11.1	9.5
16 to 19	4.8	5.1	3.9	3.7	3.8	3.5	3.9	3.5
20 to 24	6.9	8.1	7.1	5.8	7.2	5.8	7.3	5.9
25 to 54	38.9	36.7	36.4	37.5	37.0	38.4	37.9	39.5
55 and over	11.2	9.1	8.2	7.4	7.7	6.8	7.2	6.1
55 to 64	8.6	7.2	6.4	5.7	6.2	5.3	6.0	5.1
65 and over	2.6	1.9	1.8	1.7	1.6	1.5	1.2	1.0
Women, age 16 and over	38.1	41.0	44.4	45.7	44.2	45.5	43.8	45.0
16 to 24	9.8	11.1	10.7	9.6	10.6	9.4	10.4	9.1
16 to 19	3.9	4.4	3.8	3.6	3.7	3.5	3.6	3.3
20 to 24	5.9	6.7	6.9	6.0	6.9	5.9	6.8	5.8
25 to 54	22.0	24.3	28.7	31.6	28.7	31.8	28.7	31.7
55 and over	6.3	5.6	5.0	4.5	4.9	4.5	4.8	4.2
55 to 64	5.0	4.5	4.0	3.6	4.0	3.6	3.9	3.5
65 and over	1.3	1.1	1.0	1.0	.9	.9	.8	.7
White								
Total, age 16 and over	88.9	88.4	87.1	86.2	87.5	86.9	87.5	86.9
Men, age 16 and over	55.6	52.8	48.8	47.2	49.4	47.9	49.7	48.4
16 to 24	10.3	11.7	9.5	7.9	9.7	8.1	9.8	8.3
25 to 54	35.0	32.8	32.0	32.6	32.7	33.7	33.4	34.7
55 and over	10.3	8.3	7.4	6.6	7.0	6.1	6.5	5.4
Women, age 16 and over	33.3	35.6	38.3	39.0	38.2	39.0	37.8	38.6
16 to 24	8.6	9.8	9.3	8.1	9.2	8.2	9.1	7.9
25 to 54	19.0	20.8	24.6	26.9	24.6	27.0	24.4	26.9
55 and over	5.7	5.0	4.4	4.0	4.4	3.9	4.2	3.7
Black and other								
Total, age 16 and over	11.1	11.6	12.9	13.8	12.5	13.1	12.5	13.1
Men, age 16 and over	6.3	6.2	6.7	7.2	6.4	6.6	6.4	6.7
16 to 24	1.4	1.5	1.6	1.5	1.4	1.2	1.3	1.2
25 to 54	3.9	3.9	4.4	4.8	4.3	4.7	4.4	4.8
55 and over	1.0	.8	.8	.8	.7	.7	.7	.7
Women, age 16 and over	4.9	5.4	6.1	6.7	6.0	6.4	6.1	6.4
16 to 24	1.2	1.3	1.4	1.5	1.3	1.2	1.3	1.2
25 to 54	3.0	3.5	4.1	4.6	4.2	4.6	4.2	4.7
55 and over	.8	.8	.8	.8	.8	.8	.5	.5

Another important implication of these projections is that persons age 55 and over, and particularly those over 65, will continue to show an increased preference for leisure over work. The three sets of projections differ in this respect only in terms of how much lower the participation rates of older persons may go. Under the high-growth assumptions, these rates would decline very little; in the low-growth scenario they would continue to drift downward as they have over the past decade. The rationale for these assumptions is that, although the recent changes in mandatory retirement legislation might be expected to slow the decline in participation among the 65–69 age group, a sudden upturn in any of the rates for older workers is unlikely. With the general tendency toward earlier retirement expected to continue, the proportion of older persons who are outside the labor force is projected to be larger in 1990 than it is now.

Despite this projected development, the "economic dependency ratio," that is, the ratio of nonworkers to workers in the entire population, including children, should narrow considerably during the 1980's. This ratio stood at 117.8 in 1977, meaning that there were 117.8 nonworkers for every 100 workers in the population. Assuming that the birth rate will not increase much from current levels, the dependency ratio would decline considerably, both under the high-growth and the intermediate-growth scenarios. Only under the low-growth scenario, which is predicated on a sharp rise in the birth rate and on a very small increase in the overall labor force participation rate, would the "economic dependency ratio" remain at current levels (1977 = 117.8), as shown in the following tabulation:

Level of labor force growth	*Economic dependency ratio*	
	1985	*1990*
High growth	92.2	85.0
Intermediate growth	99.0	94.5
Low growth	115.2	120.3

The implications of the high-growth and intermediate-growth scenarios with regard to the dependency ratio is that each worker would have fewer nonworkers to feed, clothe and house—this should help improve our overall standard of living. Even with low rates of labor force growth and a sharp rebound of the birth rate, there still would not be a significant widening of this important ratio during the 1980's. The ratio is, of course, expected to widen considerably after the year 2000, when the post-World War II babies, who are now entering the central age groups, begin to retire. But that is a development far beyond the scope of these projections.

As already noted, the implications for blacks vary considerably with each of the three scenarios. Under the high-growth scenario, the labor force participation rates for blacks would move toward convergence with the rates for whites. For black men, this would imply a sharp reversal of long-run trends and a return to the situation in the mid-1950's, when their participation rates differed little from those of white men. Since then, their participation rates have dropped much more rapidly than those of white men, creating a substantial gap. In this context, the high-growth scenario, which would gradually lead toward a complete elimination of this gap, might be regarded as illustrative of the difficult path that has to be traveled to have black men participating fully in the economic life of our Nation.

The labor force trends of black and white women have been much different. Although participation has been increasing at a faster pace for white than for black women, the rates for black women in the central age groups are still higher than those for white women. The question is: with participation among white women fast approaching the level for black women, will the rates for the two groups gradually converge and then move together, or will they cross and diverge? Here, as in the case of men, the high-growth scenario would imply a gradual movement toward parity in the rates for the two racial groups. In the two other scenarios, the rates for white women would cross and eventually exceed those of black women.

Summary and conclusions

Labor force growth should slow down during the 1980's, largely because the working age population will be expanding much more slowly than during the 1970's. The youth labor force should actually decline considerably, reflecting the protracted decline in the birth rate during the 1960's and early 1970's. Concomitant with this development should be a significant increase in the proportion of the work force age 25 to 54.

The precise extent to which these developments will affect the size and configuration of the labor force depends on the assumptions made about the future participation rates of the various population groups. For each population group, we projected the participation rates according to three different paths. These alternative rates were then applied to the population estimates, with the results being

aggregated into a high-growth scenario, an intermediate-growth scenario, and a low-growth scenario. The resulting labor force levels for 1990 were, respectively, 125.6 million, 119.4 million, and 113.5 million. There is, of course, nothing sacred about these numbers. Each represents nothing more than the labor force levels that would be reached if the alternative assumptions made about the labor force trends for the many population groups were to come true *or* if, alternatively, overprojections for a group or set of groups were to be offset precisely by underprojections for another group or set of groups. The probability that the actual labor force trends will follow either of the three scenarios exactly may not be very high. Nevertheless, the three sets of projections should shed some useful light for planners and policymakers on the possible paths of future labor force growth. □

FOOTNOTES

[1] See Paul M. Ryscavage, "An Evaluation of BLS Labor Force Projections," presented at the meetings of the American Statistical Association in San Diego, California, Aug. 16, 1978.

[2] The projections made by BLS in 1973 and 1976 did show two alternative paths of labor force growth, but these did not differ much from the "main" projections, as the only group for whom alternative projections were made were women of child-bearing age. See Howard N Fullerton, Jr., and Paul O. Flaim, "New labor force projections to 1990," *Monthly Labor Review*, December 1976, pp. 3–13, and Denis F. Johnston, "The U.S. labor force: projections to 1990," *Monthly Labor Review*, July 1973, pp. 3–13.

[3] "Projections of the Population of the United States: 1977 to 2050," Bureau of the Census, *Current Population Reports*, Series P–25, No. 704, July 1977.

[4] "Estimates of Coverage of Population by Sex, Race, and Age," Bureau of the Census, Report PHC (E–4).

[5] The black and other category includes Negroes, American Indians, Eskimos, Asians, and others. At the time of the 1970 Census of Population, 89 percent of this population group was black.

[6] "Projections of the Population..."

[7] See Richard A. Easterlin, Michael L. Wachter, and Susan M. Wachter, "Demographic Influences on Economic Stability: The United States Experience," *Population and Development Review*, March 1978.

[8] Michael L. Wachter, "The Demographic Impact on Unemployment: Past Experience and Outlook for the Future," in *Demographic Trends and Full Employment*, Special Report No. 12 of the National Commission for Manpower Policy, December 1976.

APPENDIX: General assumptions and methodology

In addition to the specific assumptions which were made for each of the scenarios, some general assumptions which apply to all the projections discussed above should also be pointed out.

It was assumed, for example, that there will not be any substantial changes in the current definition of the "civilian labor force."[1] It was also assumed that there will not be any major wars or major social disorders which would radically alter either the demand for labor or the propensity to work. For the purposes of these projections, it was assumed that general demand would not depart significantly from the basic trends of the past two decades.

Projecting the participation rates. Projections of labor force participation were made separately by sex and race for youths age 16 and 17, 18, and 19, and for adults grouped into 5-year age groups through age 74. In addition, for women age 20 to 44 labor force participation trends were projected separately for those expected to have young children and for those not expected to have any young children.

For each group, the average annual change in labor force participation was obtained by regressing participation against time. Two different rates of change in participation were obtained for each group by fitting a regression line on the 20 annual observations for the 1958–77 period and by fitting a separate line on the observations for the 1970–77 period. For youths and women, the data for the 1970–77 period yielded generally higher rates of increase in participation than did the observations for the entire 1958–77 period. For adult men, the shorter period yielded generally greater rates of decline in participation than did the longer period.

For most groups, the coefficients from the two regressions were then used to extrapolate two different participation trends into the future, with the 1977 participation rate for the group being used in all cases as the takeoff point. (In the projections published in 1976, the takeoff point was the average for the last three annual observations.) In some cases, however, as will be noted below, the coefficients were either increased or decreased judgmentally. Also, in nearly all cases, the amount of change in the extrapolated line (r)

50-680 O - 79 - 15

was reduced exponentially according to the following equation:

$$r_i = r_{i-1} - (i \cdot r_{i-1})/276$$

where i is the number of years since 1977, and 276 is the sum of the digits for the years covering the 1977–2000 period.

The effect of this formula is to gradually reduce the rate of change to zero by the year 2000, but the tapering effect is almost insignificant during the first few years of the projection period.

This method yielded two of the three extrapolation lines needed to make three alternative projections for each group. A third line was needed and, depending on the course of two extrapolated lines, was placed either in the middle by computing a weighted average of the two lines or outside (and generally above) the two regression-derived lines. An outside placement was achieved by simply increasing or decreasing one of the coefficients or, as in the case of black men, by tracing a path that would bring their rate to eventual convergence with the rate for white men.

For white youths age 16 to 24, for example, the extrapolation of the 1970–77 trend diverged very widely from the extrapolation based on the 1958–77 trend. In this case, these two lines were used, respectively, for the high- and low-growth scenario and the line for the intermediate-growth scenario was obtained through a weighted combination of the other two lines:

$$\text{Intermediate rate} = b_i \cdot \text{high rate} + (1-b_i) \cdot \text{low rate}$$

where $b = 0.90$, and i is the number of years since 1977.

For most other groups, except for women age 20 to 44, the two regression derived lines did not diverge as much and generally were used to project the low and the intermediate-growth paths in participation trends, with their rate of change, again, being exponentially reduced and, in some cases, with the coefficients being changed judgmentally so as to produce what seemed to be more plausible future path. In these cases, the third projection line, used generally for the high-growth scenario, was obtained in various ways, as summarized below:

For white men age 25 to 29, the highest plausible path of their participation was assumed to be a line that increased at the same rate that it had declined over the 1958–77 period; for those age 30 to 45, the fastest increase was assumed to be half the rate of the long-term decline; and for those age 45 to 64, the highest plausible path assumed that the long-term decline would simply stop, with the rates remaining constant over the projection period. For men age 65 and older, participation under the high-growth assumptions was held constant until 1985, based on an assumed temporary effect of the recent changes in retirement laws. After 1985, the rate was allowed to decline in a line parallel to the intermediate-growth path. For black men age 16 to 64, the high-growth lines represent the paths which their participation rates would have to trace if they are to reach parity with the projected rates for white men of comparable age by the year 2000. These paths were obtained through the following equations:

$$r = [\ln(\text{blk lfpr}_{1977}) - \ln(\text{wht lfpr}_{2000})]/23$$

and then using this equation to obtain the labor force rate in year i by:

$$\text{blk lfpr}_i = \text{blk lfpr}_{1977} \cdot e^{(ri)}$$

For women age 20 to 44, whose participation rates have been rising at an increasing pace during the 1970's, the projections for the three scenarios were made as follows. The 1970–77 trend lines for each 5-year age group were extrapolated as the participation projections for the intermediate-growth scenario. The high-growth lines for these groups were obtained by simply increasing the coefficient derived from the short-term regression, assuming that, at least for the immediate future, participation for young and middle-age women could continue to rise at a very fast pace. However, an important constraint was applied to these extrapolations. In no case were the participation rates for women allowed to exceed the projected rates for men of comparable age. Where rates for women would have exceeded the rates for men before 1990 despite the application of the tapering formula described above, the rate of increase was reduced to zero (again, exponentially) by 1990.

To the extent that there may be a negative relationship between the labor force rates of these women and their fertility rates, the assumption implicit in both the high and intermediate-growth paths was that fertility would remain at the relatively low levels of recent years.

For the low-growth projections, on the other hand, it was assumed explicity that the fertility rate could rise significantly in the coming years, returning to the levels of the early 1960's and, thus, slowing the rise in labor force participation among women. Specifically, it was assumed that fertility would follow the path in the Series I population projections made by the Bureau of the Census. To trace the path of labor force participation under these assumptions, the population of women age 20 to 44 was divided into two groups: those

expected to have children under age 5; and those not expected to have any young children. The separate participation paths for these women were then projected on the basis of the trend in their participation rates as measured each March over the 1970–77 period. In this case, two constraints were applied: the rates for women in either of the two groups were not allowed to exceed the rates for men of comparable age; and the rates for women with children were not allowed to exceed those for women without children.

As a final step, which can be rationalized by the fact that, as of mid-1978, there were no solid signs that the birth rate was about to rise significantly, the low-growth participation projections for these women were not allowed to diverge from the projected intermediate-growth rates for women of the same age until after 1980. Implicit in this last constraint is the assumption that the birth rate is not likely to rise much above current (1978) levels until after 1980.

This describes the general methodology used in projecting the participation rates. Those who are interested in more specific detail should contact the authors of this report.

Application of participation projections. The process followed in applying the participation projections to the projected population estimates—thus generating the projected labor force levels—was as follows. For all groups, the projected rates of change in participation for each year of the projection period were applied to the previous year's ratio of the total labor force, including the Armed Forces, to the total population as projected by the Bureau of the Census. This yielded the levels of total labor force, including Armed Forces. To translate these into a civilian labor force concept and to compute the civilian labor force participation rates, two other steps were necessary: removal of the institutional population from the total population; and removal of the Armed Forces both from the population and labor force projections. Removal of the institutional population was accomplished by applying to the total population a series of constant ratios equal to those published by the Bureau of the Census with their most recent population estimates.[2] The Armed Forces were subtracted both from the population and total labor force projections based on data supplied by the Defense Department, the long-term goals of which are for a total of about 2.1 million personnel, one-tenth of whom would be women. For our purposes, it was assumed that these goals would be reached (from currently lower levels) by 1983, and that both the size and sex distribution of the Armed Forces would remain constant for the balance of the projection period.

Accuracy of population estimates. The Bureau of the Census' population projections begin with the 1970 census. Additional steps include aging the population and making the proper allowances both for the known and the projected course of births, deaths, and net migration. In the final analysis, the projected size of the population may differ from the actual "true" size both because of possible enumeration problems in the decennial census as well as because the actual course of births, mortality, and net migration may differ from the projected trends.

With regard to the population estimates used in projecting the labor force until 1990, it is worth noting again that they cannot be directly affected by any changes in the birth rate during the projection period. Although changes in mortality rates would impact on these population estimates, they are likely to have little effect on the labor force, since they would tend to fall in the older population groups where participation in the labor force is very low.

Of more importance in terms of the labor force projections are possible changes in the population estimates which might have to be made to reflect the findings of the 1980 Census or of the quinquennial census scheduled for 1985. It is also possible that the population projections might eventually be revised to reflect a better knowledge of the net migration trends, particularly with regard to the inflows of the so-called "undocumented aliens." Nevertheless, relative to the size of the total population of working age, these revisions are not likely to loom very large. □

FOOTNOTES

[1] The concepts and definitions used to measure employment and unemployment and, thus, the civilian labor force are currently being studied by the National Commission on Employment and Unemployment Statistics, which is scheduled to submit its recommendations to Congress in late 1979.

[2] Bureau of the Census, *Current Population Reports*, P-25, No. 643, table A-3.

• U. S. GOVERNMENT PRINTING OFFICE : 1979 281-403/24

Senator SARBANES. Well, I have some more questions; but I think in the interest of fairness and comity between the Senate and the House, and certainly in the interest of my very close relationship with my colleague from Maryland, I defer for the time being, and yield to Congressman Mitchell.

Representative MITCHELL. I am very pleased, Senator, that being in this more august body has not changed you.

Senator SARBANES. If it had, you would call me to task very quickly.

Representative MITCHELL. Madam Commissioner, I am still one of those lonely voices saying, "I see a recession. I see it just as clearly as I possibly can." All the factors are in place. All the indicators suggest a recession.

I want to pursue one point this morning with regard to an impending recession. As we have said so many times, we know it is coming. We just don't know when. We don't know how deep it is going to be and the duration of it. But let me ask you about what has occurred in the last couple of months.

During the last couple of months the percent of industries in which employment increased has gone way down. We have seen a significant drop in the number of industries showing increases in employment. The peak, with regard to this category, came around November 1978. Since that time it has gone steadily down. In my interpretation, this is just but one more indicator that we have a recession coming up. Prove me wrong, based on—how would you interpret that drop, the steady drop since November of 1978; and an even more steady drop, a sharp drop, in the last 2 months?

Ms. NORWOOD. Congressman Mitchell, I can't prove you wrong, and I can't prove you right, either, because I think we really don't know. It is clear, as you say, that the diffusion index reached a peak in the fourth quarter, and it has been going down since then. And as I said in my statement, we have 2 months which have been below 50 percent. That clearly shows that employment growth has slowed down, without any question. But I don't think we can generalize further from that.

Representative MITCHELL. I always enjoy your monthly visits before this committee.

Ms. NORWOOD. So do I.

Representative MITCHELL. I enjoy them tremendously. I have some questions at times as to whether or not, really, you should be with the State Department; but that is another issue. Your answers are always so very diplomatic.

Senator SARBANES. I wouldn't visit that punishment on the Commissioner. [Laughter.]

Representative MITCHELL. Strangely enough, I have a continuing interest in black unemployment; and I see, again this month, not very much has happened. In May of 1978, the black total was 12.3 percent; January 11.2, February 11.9, March 11.2, April 11.8, May 11.6. We remain at least twice as high in all categories in terms of a black unemployment, which causes me to raise a question.

No. 1, does this rate remain high, in your opinion, because of the inadequacy of present governmental efforts to cut—to reduce black unemployment? Or, No. 2, does it remain high because the present government efforts are not sufficiently funded? Or, No. 3, does this

black rate remain constantly high, as it has been for the last 2 years, because somehow or other we assume that if we reduce black unemployment, we are going to contribute more to inflation?

Ms. NORWOOD. I think those are difficult questions, and I would have to say that I don't really know why this condition is continuing. I certainly do not want to comment on the particular programs or program effects, but I think it is clear that the relationship of the unemployment rate of blacks to whites is very worrying. But it is a problem that has been persistent. There have been many explanations. You know them, certainly, as well as I, and we obviously have not succeeded in finding the answer.

Representative MITCHELL. Well, it is deeply troublesome to me, as you would imagine; and I fear that it is going to have a significant impact on the political scene in, perhaps, the next year or the year following.

I think that the unemployment remains the most burdensome problem in the black community. My fear is that anyone who seeks the Presidency, or any other office, is going to be in serious difficulty with black voters unless there is a substantial reduction in black unemployment; or unless some candidate is prepared to come up with a meaningful program for the reduction of this problem. We just have lived with it too long.

Let's talk a little bit about youth unemployment. As you know, that rate is astronomicallly high for blacks and minorities. And, as you further know, the President and the Congress anticipate that next year we will have fewer Government jobs for youth in the summer. I raise the question, really looking ahead to next year—what are the prospects, in your opinion, for youth employment this summer in the private sector? Does it look good in the light of the slowdown in employment rates? What are the prospects?

Ms. NORWOOD. If you take the group from 16 to 24 years old, we expect that group to reach 28 million this summer, which is 4 million larger than the group was last year.

You are quite right that, in addition, the school-age labor force increases sharply each summer. There are a number of federally funded programs, which I know, Congressman, you are well aware of. It is hard to know what the private sector will do.

You are quite right that we are now, in the month of May, having an employment slowdown. But it depends upon the kinds of jobs that might be developed for these people, and how the arrangements are made. I really have no particular evidence of what might happen, except that we can expect a larger number of young people to be looking for jobs in the summer.

Representative MITCHELL. I guess I'll learn to be a good politician, one of these days. A good politician never comes out and makes a flat definitive statement. I always come out and make one. That's why I am not a good politician.

The chances are going to be much worse, based on my reading. If there is a consistent slowdown in employment, if the growth rate is slowing, if there is not an expansion of production in the private sector, I think that the chances of youth being employed in the private

sector this summer are much less than they would have been last year.

Ms. NORWOOD. I think that is certainly correct, sir. And I think the question is whether Government programs might have some effect on that.

Representative MITCHELL. Very little, based on the budget that was just passed by the Congress. What we did last year in the budget—we really were not very effective in addressing this problem last year, in our budget prepared for this summer. To add on to the problem; where there have been opportunities for summer youth jobs, most often it has been in fast-food services and that kind of thing. My specific question is: To what extent does the alleged gasoline shortage—to what extent has that contributed to the increase in unemployment; and to what extent will that act in an inimical fashion in terms of youth employment this summer?

Ms. NORWOOD. As always, Congressman Mitchell, it's a very good question that you pose. But I don't have an answer to it. I can say that it's very difficult to relate gasoline shortages to employment. We know, for example, that the Energy Department certainly anticipates that this summer there will be some shortages. We don't know how great the shortages will be. We don't know where they will be. We do know that there is an allocation system for gasoline that is based upon the total years' use of gasoline, so that would benefit places where there is high summer use of gasoline.

We also know that the allocation system apparently provides for a set-aside of 5 percent for the Governor's use. But we have no way of knowing how the Governor in a particular State will decide to use that set-aside system that he has.

We did try to take a look at this problem, not focusing specifically on what might happen this summer, but rather we sort of sat back and said, "How could we get a handle on this? Maybe what we ought to do is go back to the period after the oil embargo in 1974, and see if we can find out whether anything happened then that was different in particular industries."

Well, the first thing we found was that it was almost impossible to define a specific tourism industry in the data. So, we then decided that one of the ways we could do this was to look at it by county; and there are some counties which clearly have a heavy proportion of employment recreation industries in them, or tourist industries. We did go back and look at that. Obviously, none of this is conclusive because it is just an association, not a causation.

But we did find that in early 1974, after the oil embargo, there was a change in the employment situation in places like Williamsburg, Va.; the State of Vermont; Disney World, the Orlando area. On the other hand, there were many other areas like Ocean City, Md.; Aspen, Colo.; where there was no change in the data. So I don't really have any answer for you. We are interested in this. We just haven't figured out a way to get at it.

Representative MITCHELL. Thank you, Commissioner. This is always the grimmest day of the month for me, when we get this data. It is grim simply because I am concerned, as I know all my colleagues are concerned, about the persistent rate of high black unemployment which, in my view, is a clear and present danger to this country. I am so

despairing and so desperate that today I was driven over to the Republican side.

Thank you, Senator Sarbanes.

Senator SARBANES. I do want, for the sake of the accuracy of the record, to enter a very strong disclaimer to Congressman Mitchell's statement that he's not a good politician; he's an extremely good one, and that comes from someone who regards being a politician as an honorable profession.

Commissioner, I just want to follow up very quickly. I share Congressman Mitchell's very deep concern about these figures, and not only the overall figures, but the composition of them, and the fact that black teenage unemployment is at 37 percent. That's just an extraordinary figure.

Let me ask this question: Is that a figure that has been rising over time?

Ms. NORWOOD. It's been rather steady.

Senator SARBANES. Over what period of time? I mean, have we always had two-fifths of our black teenagers, aged 16 to 19, unemployed in this country?

Ms. NORWOOD. It's been fairly stable or level for 6 or 7 years, but, of course, we have had in that period a very large increase in the number of young people in the country. That, of course, is changing.

Senator SARBANES. That's on the downward slope now. In other words, the addition of young people to the labor force is declining. Is that correct?

Ms. NORWOOD. That's right. The population is declining. I don't know what the labor force will do.

Senator SARBANES. Fine. Are the additions to the labor force, as you see them, given the increases which have occurred—you particularly noted women coming into the labor force, which may have reached the peak, for all we know—does that hold out the prospect that employment growth can slow down without the unemployment rate going up? Or are we to see a slowdown in employment growth as a strong signal that the unemployment rate is on its way up?

Ms. NORWOOD. That's, of course, a projection that we don't have any crystal ball to discern. Clearly, you're quite right that it depends, to a large extent, if the slowdown continues, upon what happens to the labor force. We have had situations where there have been changes in the economy, and the unemployment rate certainly does not take off to lead that change in the economy. It lags a bit. It's perhaps coincident with the change, so I think that one big question is: What will happen to the labor force? We don't know that.

I certainly do not want you to think that I am suggesting that the continued entry of women into the labor force is going to stop. I'm just saying that over the last couple of months we have had a slowdown in the labor force growth, and I don't know whether that is a forerunner of something that is going to stay with us or whether it's a temporary thing.

Senator SARBANES. If you were one—well, let's assume a strong commitment to full employment and the view that it's essential to develop an economy that offers job opportunities to all its people. Working off that premise, which of the figures here with respect to unemployment should be of deepest concern?

Ms. NORWOOD. Well, I think it's clear that the problems we have in unemployment are what are generally called structural. They affect particular groups of the population and, therefore, if we're going to be able to cope with them, we've got to find programs that will affect those groups.

That's really, I think, what Mr. Mitchell was suggesting.

Senator SARBANES. So you're concerned really more with the components of the overall figures than with the overall figures themselves. Is that correct?

Ms. NORWOOD. Well, I believe in looking at all kinds of data, sir, but if you look at tables which show the unemployment rates for different groups of the population——

Senator SARBANES. What's this? Table A–2?

Ms. NORWOOD. A–2, toward the middle. You will find, for example, that the unemployment rate for married men as a group is 2½ percent. The unemployment rate for married women as a group is 5.2 percent. Those rates are very different from the rates, for example, if you separate out whites from blacks; or if you separate out teenagers, you will find the rates very, very different.

So there are some groups of the population which seem to be doing fairly well.

Senator SARBANES. Now, do you have the figure for married men or married women for blacks and whites separate?

Ms. NORWOOD. We don't have it here, but we can submit it for the record.

Senator SARBANES. Do you know if the gap in that area is roughly equivalent to the gap which exists for adult men and women generally, which is roughly, well, it's more than twice?

Mr. STEIN. For married men, I believe, the gap is somewhat less between black and white groups than it is overall for all adult men.

Senator SARBANES. Could you submit those figures for the record? I think it would be helpful to have that.

Ms. NORWOOD. Yes.

[The information referred to follows:]

1978 ANNUAL AVERAGE UNEMPLOYMENT RATES

	White	Black and other	Ratio of black to white
Married men	2.6	4.8	1.8
Married women	5.1	8.7	1.7

Senator SARBANES. With respect to your statement where you talk about productivity declining 4.6 at an annual rate in the private business sector, down 3.2 percent in manufacturing—when was the last time we had any figures that approached that with respect to productivity declining in our economy?

Ms. NORWOOD. I don't know exactly.

Senator SARBANES. That's really an extraordinary set of figures, though, is it not?

Ms. NORWOOD. Yes. Although as you know, for the first quarter of the year, there are always special situations because of the changes that occur, because of legislative requirements. We've had minimum

wage increases, for example, which take place generally in January. We have also had changes in the social security laws. That's one of the reasons that I compared the first quarter with a year ago rather than first quarter to fourth quarter.

We did have, as Mr. Layng has pointed out to me, about the same drop last year in the first quarter in the private business sector—4.6 down. In the first quarter of 1979, it was minus 4.5. In the first quarter of 1978, the rate over the whole year of 1978, was plus 0.3—a very, very slow rate of growth—productivity—very poor productivity.

Senator SARBANES. Senator Javits.

Senator JAVITS. Ms. Norwood, what is the connection, in your judgment, if any, between this terrible failure of productivity in this traditionally the most productive country in the world and the very sticky unemployment figures? Especially at the level of youth, you would expect the greatest gains to be made in the productivity of the country. Is there any connection, in your judgment?

Ms. NORWOOD. Well, I think there are several things.

First of all, of course, the extraordinary growth of the labor force has meant that there have been a lot of new workers, young workers, and new workers coming into the labor force who have had less experience and perhaps less training than people who have been in the labor force for a longer period of time. And, therefore, you would expect that that change would have a downward pull on productivity.

That change in the composition of the labor force should improve as these people get more skill, more experience, and become older.

We had a period of very, very string employment growth, and there is a tendency, of course, when we've had the kind of expansion we've had, for employers to feel that they are going to have continued very high increases in orders and, therefore, to go out and hire more and more people.

And I think there's been some of that happening, which, of course, also would reduce the productivity figures some.

Senator JAVITS. Now what about the sensational increases in labor costs as contrasted with the rate of inflation? What connection do you see there?

Ms. NORWOOD. Well, we have had, certainly, in the 16-percent range—that's very high labor cost. If you look at compensation per hour, which includes fringes as well as salaries and wages, we've had about an 11-percent increase in the first quarter.

But the first quarter figures were affected by some special factors. Over the year, wages have been increasing at roughly 8 to 9 percent, depending on the particular measure you use. And as we know, the rate of price increase has been at least that; therefore, real earnings have been either absolutely level or have declined, depending upon the particular index you use.

Senator JAVITS. And again, is it not a fact that if the productivity growth were normal—which generally speaking in our history has been 2 to 3 percent per annum—that the inflationary factor of labor cost with relation to price would be very materially reduced?

Ms. NORWOOD. Absolutely.

Senator JAVITS. Doesn't that also have some bearing on whether or not there is adequate capital investment in the economy in order to maintain its efficiency? You would agree with that?

Ms. NORWOOD. Yes; I think so. I think the question of the capital-labor ratios is one of the most serious we have to deal with in improving productivity.

Senator JAVITS. Now is there anything you could give us from the statistical side, which is your department, that would link these things together—that would give us any lesson in what we ought to be doing—for example, whether we ought to stimulate capital investment. You already said, I gather, that we certainly ought to target in on training, especially for new and young workers, and therefore that whatever would bring that about would be helpful to the economy.

Ms. NORWOOD. We have done some studies in trying to look at the contributions of the various factors on the productivity change, and I will be glad to submit a statement for the record on that. Such a statement could get to the kinds of issues you've been raising—the capital-labor ratio, the question of the composition of the labor force and its effect, possible cost of regulation, and so on.

Senator JAVITS. Skill of the labor force, and also the morale of the labor force.

Ms. NORWOOD. Yes; that's certainly so. There has been a commission of the National Academy of Sciences that has been reviewing the whole question of productivity and productivity measurement. That's been headed by Al Reese, formerly of Princeton University. They should be making their report this month. We have already been working very closely with them and have been looking at the possibilities of expanding our analytical program to look really at what, I suppose, we might call multifactor productivity, because labor productivity is, of course, one aspect of all the factors of production, and we do hope to move more rapidly into that field.

Senator JAVITS. Well, to me, this is the central failure of our system—the way in which productivity growth has diminished and the seemingly intractability of it.

Senator SARBANES. Before it slips, I think it would be good if we take the Commissioner up on that report.

Senator JAVITS. Oh, of course, not only the paper which she'll give us—which I ask unanimous consent may be made part of this record—but also the followup.

Senator SARBANES. Without objection, so ordered.

[The paper referred to follows:]

PRODUCTIVITY DEVELOPMENTS

What has been happening to productivity?

Last year, productivity as measured by output per hour of persons in the private business economy (the largest sector for which we have aggregate measures) rose 0.3 percent, extending a decelerating trend which has been taking place since the mid-1960's. From 1947 to 1965, productivity grew at a rate of 3.2 percent per year and since 1965 it has risen by one-half that rate—1.6 percent per year.

The decline since the mid-1960's, however, must really be broken into two periods—the period from 1965–73 and the period from 1973 to the present. The factors affecting productivity in each period are quite different. Moreover, the economic sectors which contributed to the deceleration in the first period were different from those in the more recent periods. From 1965–73, the trend rate dropped to 2.3 percent per year and from 1973 through 1978, the rate dropped to 0.9 percent per year.

The productivity slowdown has been fairly pervasive, affecting most sectors. Some sectors, such as mining and public utilities, have shown very marked deceleration and even declines since 1965. Others, such as construction (here the measures are quite weak) and finance, insurance and real estate showed greater deceleration in the 1965–73 period than in the most recent period. The accompanying table 1 shows the fall-off in the growth rates by major economic sector.

Of the 75 industries for which publishable indexes of productivity are available, over three-fourths had significant declines in their growth rates. The accompanying table 2 shows these industries ranked in order of their fall-off in productivity growth during the most recent period, 1973–77 (the latest year for which data on these industries are available). In general, the mining, transportation and selected manufacturing industries, such as petroleum refining, motors and generators, aluminum rolling and drawing, had the largest fall-off in their productivity growth rates.

Why has productivity growth rate slackened?

Much attention has been focused on the reduction in productivity growth and many explanations have been advanced for the slowdown. These have included the effects of shifts in the industrial composition of the economy, changes in the composition of the labor force, an apparent slowdown in capital-labor ratios, the leveling off of research and development expenditures in the 1960's, the rising price of energy after 1973, the diverting of investment to pollution abatement expenditures in recent years, the maturation of many industries with little new technology and even changes in attitudes toward work in our society.

There is no simple explanation for the decline and there is no general agreement as to the quantitative impact of these various factors. In fact, if they were aggregated in some fashion, they would probably overexplain the slowdown. However, some of the more important ones we have looked at include changes in the composition of the workforce, changes in the capital-labor ratios and the inter-industry composition shifts. The business downturn affected the period 1974 through 1975 and had an impact on the growth rates but by 1978 recovery had taken place and exceeded the levels of output which had been reached in 1973.

Large numbers of young people have entered the labor force during this period of productivity fall-off. Their numbers have been so great that the profile of the employees has been affected. The proportions of younger people (16–24), as a percent of the workforce, increased from 19 percent in 1965 to 24 percent in 1973, and to 25 percent in 1978. To the extent that these new entrants have less work experience than the rest of the workforce, their contribution to output growth may initially be smaller. It is estimated that the changing age composition contributes about 0.2 percentage points to the deceleration from 1965–73.

An important determinant of productivity growth historically has been the increase in the capital stock which the workforce has had available to generate increased output. Investment in equipment and structures has slowed in recent years at the same time that there was a strong growth in employment and hours. As a result, the capital-labor ratio (constant dollar stock of equipment and structures per employee hour) which had been growing at a rate of 3.0 percent per year from 1947–65 and 3.8 percent from 1965–73 fell to a rate of 1.7 percent from 1973–77. Changes in the growth of capital per worker did not contribute to the 1965–73 productivity slowdown, but they did contribute to the slowdown after 1973. Our estimates indicate that almost one-half of one percentage point of the fall-off since 1973 could have been associated with this factor. The attached table 3 shows the different growth rates in the capital-labor ratio during these periods. Table 4 shows the contribution to the change in labor productivity for the nonfarm business sector as well as the contribution of changes in the composition of the capital-labor stock. A more complete analysis of the role of capital formation in the productivity slowdown is contained in a paper prepared by J. R. Norsworthy and Michael J. Harper entitled, "The Role of Capital Formation in the Recent Productivity Slowdown." (Bureau of Labor Statistics Working Paper No. 87. January 1979.)

Many influences contributed to the decline in investment during this period, such as the economic downturn from 1974 through 1975 and the rise in energy prices after 1973. Moreover, some of the new investment has been made to meet mandated pollution control and safety standards and the impact of this capital investment is not reflected in the final output of the industries. Therefore, the

impact of the smaller investment in capital stock on productivity growth was further diminished. Of course, the benefits of this investment in less pollution and fewer work-related injuries are not measured in the GNP nor in the measured productivity growth.

One area which has often been cited as the source of the fall-off in productivity growth—the shift to services—has not, in our opinion, had any effect. There has been intersector shifts in the composition of the economy which have had an effect on productivity growth, such as the shift in employment from the farm to the nonfarm sector. This shift contributed about 15 percent or 0.4 percentage points to the productivity growth from 1947–65. Since 1965, however, that shift has virtually ended and no additional gains have been forthcoming. As a result, part of the slowdown from 1965 to 1973 reflected that. However, within the nonfarm sector, while shifts in employment have taken place to many non-commodity producing sectors, this has had no impact on overall productivity growth. The productivity levels of many of these sectors are above the levels of many of the commodity-producing sectors.

Some research has been done on the impact of the other factors, such as the reduction of R&D expenditures and the changes in the attitudes toward work, but we believe that the quantitative impact of these factors on the productivity slowdown have not been clearly established.

TABLE 1.—PRODUCTIVITY GROWTH RATES, PRIVATE BUSINESS ECONOMY AND COMPONENT SECTORS, SELECTED PERIODS

	Growth rates: Average annual rates of change (percent)			Average shares in private business hours (percent of total)		
	1948–65	1965–73	1973–77	1948–65	1965–73	1973–77
Private business	3.2	2.3	1.1	100	100	100
Mining	4.2	2.0	−5.3	1	1	1
Construction [1]	2.9	−2.2	.4	6	7	7
Manufacturing	3.1	2.4	1.6	30	32	30
Durable	2.8	1.9	1.2	17	19	18
Nondurable	3.4	3.2	2.2	13	13	12
Transportation	3.3	2.9	.9	5	5	4
Communication	5.5	4.8	7.0	1	2	2
Utilities	6.2	4.0	−.4	1	1	1
Trade	2.7	3.0	.4	23	29	26
Wholesale	3.1	3.9	.1	6	7	7
Retail	2.4	2.3	.4	17	18	19
Finance, insurance, and real estate [1]	1.0	−.2	1.8	5	6	6
Services [1]	1.5	1.9	−.3	12	14	16
Government enterprises	−.8	.9	−.7	2	2	2
Agriculture	5.6	5.4	4.3	12	6	5

[1] The output measures for these sectors as measured in the national income and product accounts are judged to be inappropriate to support publishable productivity measures. BLS reports productivity for these sectors only as an aid to understanding productivity movements in larger aggregates.

Source: Bureau of Labor Statistics, U.S. Department of Labor.

TABLE 2.—SELECTED INDUSTRIES, PRODUCTIVITY FALLOFF, 1973–77 FROM 1947–73, AVERAGE ANNUAL RATES OF CHANGE

SIC code	Industry	1973–77 falloff from 1947–73	Average annual rate of change	Year	Average annual rate of change	Year
2065	Candy and other confectionery products	8.5	3.6	1947–73	−4.9	1973–77
1011	Iron mining, usable ore	8.0	3.5	1947–73	−4.5	1973–77
1011	Iron mining, crude ore	7.7	4.8	1947–73	−2.9	1973–77
4213 PT	Intercity trucking, general freight	7.6	2.4	1954–73	−5.2	1973–75
111, 121	Coal mining	7.4	3.8	1947–73	−3.6	1973–77
121	Bituminous coal and lignite mining	7.3	3.9	1947–73	−3.4	1973–77
142	Crushed and broken stone	6.4	4.3	1958–73	−2.1	1973–77
2511, 17	Wood household furniture	5.9	3.0	1958–73	−2.9	1973–76
2911	Petroleum refining	5.6	5.7	1947–73	.1	1973–77
3351	Copper rolling and drawing	5.4	3.4	1953–73	−2.0	1973–77
3621	Motors and generators	5.4	3.8	1954–73	−1.6	1973–76

TABLE 2.—SELECTED INDUSTRIES, PRODUCTIVITY FALLOFF, 1973–77 FROM 1947–73, AVERAGE ANNUAL RATES OF CHANGE—Continued

SIC code	Industry	1973–77 falloff from 1947–73	Average annual rate of change	Year	Average annual rate of change	Year
491, 92, 93	Gas and electric utilities	5.1	6.4	1947–73	1.3	1973–77
401	Railroad transportation, revenue traffic	5.1	4.6	1947–73	−.5	1973–77
14	Nonmetallic minerals except fuels	5.0	4.2	1954–73	−.8	1973–77
3241	Hydraulic cement	4.9	4.5	1947–73	−.4	1973–77
3255	Clay refractories	4.8	3.8	1958–73	−1.0	1973–77
401	Railroad transportation, car miles	4.4	4.0	1947–73	−.4	1973–77
3353, 54, 55	Aluminum rolling and drawing	4.3	6.1	1958–73	1.8	1973–77
4511	Air transportation	3.9	7.9	1947–73	4.0	1973–77
3271, 72	Concrete products	3.7	3.8	1947–73	.1	1973–76
325	Structural clay products	3.6	3.8	1958–73	.2	1973–77
2611, 21, 31, 61	Paper, paperboard and pulp mills	3.5	4.1	1947–73	.6	1973–77
3273	Ready-mixed concrete	3.5	1.9	1953–73	−1.6	1973–76
3334	Primary aluminum	3.4	3.7	1947–73	.3	1973–77
3645, 46, 47, 48	Lighting fixtures	3.4	3.5	1961–73	.1	1973–76
331	Steel	3.4	2.2	1947–73	−1.2	1973–77
3651	Radio and TV receiving sets	3.2	4.9	1958–73	1.7	1973–76
3251, 53, 59	Clay construction products	3.2	3.8	1958–73	.6	1973–77
2041	Flour and other grain mill products	3.2	3.0	1947–73	−.2	1973–77
7011	Hotels, motels and tourist courts	3.2	2.4	1958–73	−.8	1973–77
54	Retail food stores	2.7	2.4	1958–73	−.3	1973–77
251	Household furniture	2.5	2.6	1958–73	.1	1973–77
3631, 32, 33, 39	Major household appliances	2.2	5.8	1958–73	3.6	1973–77
2421	Sawmills and planning mills, general	2.1	2.9	1958–73	.8	1973–77
2435, 36	Veneer and plywood	2.0	5.1	1958–73	3.1	1973–76
3331, 32, 33	Primary copper, lead and zinc	1.9	2.7	1947–73	0.8	1973–77
2514	Metal household furniture	1.8	2.3	1958–73	.5	1973–76
721	Laundry and cleaning services	1.6	1.8	1958–73	.2	1973–77
205	Bakery products	1.5	2.1	1947–73	.6	1973–77
2043	Cereal breakfast foods	1.5	2.0	1963–73	.5	1973–76
203	Canning and preserving	1.4	3.2	1947.73	1.8	1973–76
314	Footwear	1.3	1.4	1947–73	.1	1973–77
3011	Tires and inner tubes	1.2	3.7	1947–73	2.5	1973–77
58	Eating and drinking places	1.0	1.0	1958–73	−0	1973–77
2121	Cigars	.9	5.0	1947–73	4.1	1973–77
2045	Blended and prepared flour	.9	2.4	1963–73	1.5	1973–76
3641	Electric lamps	.8	2.2	2954–73	1.4	1973–77
3325, 25	Steel foundries	.8	1.7	1954–73	.9	1973–77
3321	Gray iron foundries	.7	2.5	1954–73	1.8	1973–77
2653	Corrugated and solid fiber boxes	.6	3.6	1958–73	3.0	1973–77
2111, 21, 31	Tobacco products, total	.6	3.0	1947–73	2.4	1973–77
2061, 62, 63	Sugar	.5	3.8	1947–73	3.3	1973–77
1021	Copper mining, crude ore	.4	4.1	1947–73	3.7	1973–77
3221	Glass containers	.3	1.5	1947–73	1.2	1973–77
2834	Pharmaceutical preparations	.2	4.9	1963–73	4.7	1973–77
		1973–77 advance from 1947–73				
2044	Rice milling	0.1	2.9	1963–73	3.0	1973–76
2082	Malt Beverages	.2	5.1	1974–72	5.3	1973–77
5511	Franchised new car dealers	.3	3.0	1958–73	3.3	1973–77
2823, 24	Synthetic fibers	.3	6.1	1957–73	6.4	1973–77
5541	Gasoline service stations	.4	3.8	1958–73	4.2	1973–77
371	Motor vehicles and equipment	.5	3.9	1957–73	4.4	1973–77
2111, 31	Cigarettes, chewing and smoking tobacco	.5	1.5	1947–73	2.0	1973–77
2515	Mattresses and bedsprings	.6	3.7	1958–73	4.3	1973–76
2512	Upholstered household furniture	.8	1.6	1958–73	2.4	1973–76
4213PT	Intercity trucking	.9	2.8	1954–73	3.7	1973–77
204	Grain mill products	1.1	3.3	1963–73	4.4	1973–76
1021	Copper mining recoverable metal	1.3	2.2	1947–73	3.5	1973–77
2047, 48	Prepared feeds for animals and fowls	1.5	3.8	1963–73	5.3	1973–76
4811	Telephone communications	1.9	5.9	1951–73	7.8	1973–77
3411	Metal cans	2.5	2.3	1947–73	4.8	1973–77
2851	Paints and allied products	3.0	2.7	1958–73	5.7	1973–76
2086	Bottled and canned soft drinks	3.2	2.2	1958–73	5.4	1973–77
2251, 52	Hosiery	3.9	5.5	1947–73	9.4	1973–77
2046	Wet corn milling	7.5	3.5	1963–73	11.0	1973–76

Source: Bureau of Labor Statistics, U.S. Department of Labor.

TABLE 3.—PRODUCTIVITY AND RELATED MEASURES, SELECTED PERIOD, 1948–78, AVERAGE ANNUAL RATES OF CHANGE

Period	Labor Productivity [1]	Employment [2]	Labor input [1]	Gross capital stock basis [3]			Net capital stock basis		
				Gross stock [3]	Capital/labor ratio	Capital Productivity	Net stock [3]	Capital/labor ratio	Capital productivity
Private business sector:									
1948–65	3.30	0.71	0.38	2.67	2.34	1.00	3.05	2.71	0.63
1965–73	2.34	2.08	1.44	3.84	2.39	−.06	4.31	2.86	−.51
1973–78	.92	1.95	1.42	2.84	1.50	−.48	2.41	1.07	−.07
Nonfarm business sector:									
1948–65	2.72	1.28	1.09	2.74	1.71	1.08	3.14	2.10	.69
1965–73	2.03	2.45	1.84	3.97	2.12	−.09	4.45	2.59	−.55
1973–78	.83	2.11	1.57	2.89	1.40	−.47	2.44	.96	−.04

[1] Output, employment and hours for Government enterprises are excluded from this analysis because corresponding capital measures are not available.
[2] BEA estimates of pollution abatement capital available on net basis only. No estimate of pollution abatement capital is available for farm sector.
[3] Aggregate stock of equipment and structures.

Source: Bureau of Labor Statistics, U.S. Department of Labor, June 1979.

TABLE 4.—DECOMPOSITION OF LABOR PRODUCTIVITY BY COMPENSATION-SHARE WEIGHTED INTERSECTOR SHIFTS, THE CAPITAL LABOR RATIO, AND RESIDUAL PRODUCTIVITY CHANGE

Sector period	Growth in labor productivity (LP percent)	Growth in capital/labor ratio (times capital's share) (KLR percent)	Shifts in asset types (times capital's share) (including interest) (SA percent)	Intersectional shifts in capital (times capital's share) (SK percent)	Total effect of capital formation (KLR percent plus SA percent plus SK percent)	Intersectoral shifts in labor (times labor's share) (SL percent)	Residual (R percent)
Private business:							
1948–55	3.60	0.77	0.13	0.12	1.02	0.31	2.26
1955–65	3.14	.75	.01	.12	.88	.21	2.04
1965–73	2.34	.75	.10	.18	1.03	.15	1.15
1973–78 [1]	.92	.21	.05	.03	.29	−.02	0.65
Nonfarm business:							
1948–55	2.89	.62	.09	.03	.74	.00	2.15
1955–65	2.68	.72	.02	−.02	.72	−.04	2.01
1965–73 [1]	2.03	.84	.08	.00	.92	.00	1.11
1973–78	.83	.21	.04	.00	.25	−.07	.65

[1] Intersectoral shifts in labor and hours in Government enterprises are estimated for 1978.

Source: Bureau of Labor Statistics, U.S. Department of Labor, June 1979.

Senator JAVITS. As one Senator, I'd like to encourage you greatly to work with the National Academy of Sciences' committee. That's why I say what I do. I know of no problem in our economy greater than this one. This is the central cancer; and until we exercise it, we're not going to get on top of inflation.

You know, we may think we are, by cutting the deficit, which I am all for—anything you can do to lessen the pain is helpful—but that's the essence.

Ms. NORWOOD. I agree with you completely, Senator Javits. It's a scenario we're very much interested in.

Senator JAVITS. It's something I've been hitting hard for a long time, and now I'm glad it's beginning to be so recognized. I deeply appreciate your view, Ms. Norwood, and you can be very helpful in this in laying bare the facts which will finally convince us that this is the basis of it.

I always say—and I know it's true; it's not said in denigration—Government takes; business makes. And, if business doesn't make, you're simply going to print money.

Thank you, very much.

Senator SARBANES. Commissioner, I have just a couple of questions to conclude. One, have you seen any trends in teenage job seeking in recent years, in terms of the percentages seeking jobs or the percentages working, going to school, versus the summertime. Is there any significant trend, any differences, between white and black youth? Are there any comments you can make on that subject?

Mr. STEIN. In the last couple of years, during the period when we had a strong employment program, black employment among the teenage group has been rising, but actually the numbers coming into the labor force have also been rising. It's been impossible to get the unemployment rate down for young people. There's really been a big reservoir of young black people previously out of the labor force who have been moving in.

Senator SARBANES. Well, they were out of the labor force simply because they didn't think there was any purpose in being in it, because they didn't think there were any jobs to be found. Is that correct?

Mr. STEIN. That's probably right.

Senator SARBANES. Would that be a realistic assumption?

Ms. NORWOOD. That's probably correct.

Senator SARBANES. Based on past experience, what percentage of teenagers do you expect will receive Government-supported jobs this summer? What percentage will find jobs on their own in the private sector, and what percent will be unable to find jobs?

Ms. NORWOOD. We don't have any figures on that, sir.

Senator SARBANES. Do you have any figures on how long it takes a person to get his or here first job? How long they have to look in the society before they're able to get a first job?

Ms. NORWOOD. We have done some work on job search, but I don't know that we have anything on the very first job. We could check that and see if we could submit something for the record.

Senator SARBANES. For example, if we go to speak to a high school senior class or college senior class, and one of those students in each place were to say to us: "Well, I'm getting out of here in a couple of weeks' time, and I'm going to be looking for a job; how long do you think it's going to take me to find a job; how long will I have to look?"—what's the most accurate estimate we could give that young man or woman?

Ms. NORWOOD. I don't know that we can even give any kind of estimate, because it all depends so much on changes in the economy. We do know that a number of private agencies have reported that there has been a considerable increase in past months in recruitment efforts by private business. We have a program of occupational outlook which looks at projections 10 or 15 years ahead. and there certainly are some things which can be said from that. But it's very difficult to have any specific kind of information.

I think that one of the things that needs to be done is to emphasize to people the need to be flexible about taking job opportunities, particularly college-educated people.

Senator SARBANES. It is my own view that this is one of the things that is just destroying morale in a significant portion of our population, and that if you don't offer people the opportunity to work and get them moving on that track and develop the work habits that come out of it, you're just creating a problem for the future.

And along that line, I see in table A–6, where you talk about unemployment by sex and age, and you break the ages down, if you look at those that are unemployed, 20 to 24 and 25 years and over, and so forth, is it accurate to assume that those people were unemployed in the 16 to 19 age group, although the figure drops because some of them pick up on employment as they go, that you start off with that mass of unemployed in that 16 to 19 group, and that that in effect carries through in subsequent age groups? It becomes a burden you're constantly trying to work off; is that an accurate assumption?

Ms. NORWOOD. I think that clearly there is a problem. There are a lot of teenagers who are not developing employment experience, and when they get to be older—25 years old—many of them will not have had the employment experience that prime-age workers frequently have.

On the other hand, we have to remember that there is a lot of flow in and out of the labor force, and in and out of employment. And so, when we talk about the unemployed, we're not always talking about exactly the same people.

Senator SARBANES. I think that observation underscores the thrust of what Congressman Mitchell was saying earlier.

Does anyone else have any questions? [No response.] Commissioner, we thank you. Are there any comments that you want to add at the end?

Ms. NORWOOD. No, sir. And thank you, Senator.

Senator SARBANES. We appreciate your appearance this morning. Thank you.

[Whereupon, at 1:15 p.m., the committee adjourned, subject to the call of the Chair.]

○